THE INCOME AND STANDARD OF LIVING *of* UNSKILLED LABORERS IN CHICAGO

By Leila Houghteling

Social Science Studies

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By LEILA HOUGHTELING, PH.D.
Late of the Faculty of the Graduate School of Social Service Administration of the University of Chicago

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PREFACE

Dr. Leila Houghteling, whose death occurred on January 1 of the present year, left the manuscript of this volume in completed form ready for the press. The circumstances that led to this unique study of family budgets are explained so clearly in the first chapter of her text that very little is needed in the way of a prefatory note. Those who have followed the inquiry through the various stages of its development have been increasingly confident of its importance as a contribution to the literature of the subject. As Dr. Houghteling herself has explained in her first chapter, the investigation was undertaken in the hope of throwing light on the vexed question of the relation between standards of relief-giving and the wage levels of the unskilled group. When it was suggested that the Graduate School of Social Service Administration might undertake the responsibility for the inquiry, Dr. Houghteling's special qualifications for the task were at once apparent to all who were interested. She had been at one time a district superintendent of the United Charities of Chicago, and she was thoroughly familiar with the family problems and the family budgets of the poor. On the other hand, she had been closely associated through family ties with members of the employing group, and she was regarded in the community as a person who knew intimately both sides of the social problem. She was one of those rare investigators who seem to be wholly without bias, for, although she had warm and quick sympathies, she was also singularly fair-minded and open-minded.

The Committee under whose auspices the inquiry was carried on represented the Chicago Council of Social

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Agencies, the University of Chicago, and certain large employers of labor; and the members of the Committee were unanimous in thinking that if Dr. Houghteling took charge of the inquiry the results would command the confidence of all groups in the community. The investigation proved a more laborious undertaking than she had foreseen, but she saw it through at great personal sacrifice and with the fine sense of thoroughness that was characteristic of her work. It presented some extremely difficult problems; but she enjoyed hard problems, in particular hard problems that were real problems.

Were she here to write this Preface she would wish to express her grateful thanks to many of those who supported her in this undertaking; first of all, to her sister, Miss Harriot P. Houghteling, who advised and helped at every stage of the work; and then to the members of the Joint Committee, in particular to Professor H. A. Millis, who acted as chairman of the Committee and who shared with her some of the numerous preliminary conferences with the employers; to Miss Florence Nesbitt, who gave generous help at many points; to her colleague and friend Professor Sophonisba P. Breckinridge, for helpful counsel during the writing of the report; to Mr. W. S. Reynolds, of the Chicago Council of Social Agencies, Mr. Joel D. Hunter, of the United Charities, and Mr. Harry L. Lurie, of the Jewish Social Service Bureau, for their interest and support; to Dr. Helen Russell Wright, of the Institute of Economics in Washington, for suggestions in the early stages of the inquiry; and last but not least to the investigators who carried through the tedious work of schedule-taking so intelligently and so faithfully. Acknowledgments should also be made to Dr. Helen R. Jeter and to Miss M. E. Lavery, of the School of Social Service Administration,

who have assisted in the preparation of the manuscript for the press and in the proofreading.

The Joint Committee was dissolved after Dr. Houghteling's study was completed; but they in turn would like to have recorded here their deep appreciation of her tireless and devoted work, and their confidence that the results of the inquiry will be of great interest to employers and employed, to social scientists, and to those interested in social work.

EDITH ABBOTT

August, 1927

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CHAPTER I

INTRODUCTORY

During the past twenty years relief organizations throughout the country have been searching for a more scientific method of determining what constitutes "adequate relief" for families dependent upon them for support. Before this time, while the giving of financial aid was even more emphasized as a method of treatment than it is today, the actual giving of relief was done in rather a hit-or-miss fashion without knowledge of what was needed and evidently without the understanding that relief so given might be more demoralizing in its effects upon a family than actual deprivation would have been.

One of the first indications that consideration was being given to the problem of the standard of living of dependent families was the appearance in May, 1906, of an article by Miss Caroline Goodyear of the New York Charity Organization Society, entitled, "Household Budgets of the Poor."[1] This was a dietary study of a group of families known to Miss Goodyear, and went into some detail as to the living conditions of these families, with especial reference to food habits and expenditures.

In November of the same year, at the Seventh New York State Conference of Charities and Correction,[2] held in Rochester, the opening session was devoted to

[1] "Household Budgets of the Poor: An Inquiry into Dietary Standards and Habits of a Group of Tenement House Families in New York City," *Charities and Commons*, May 5, 1906.

[2] *Fortieth Annual Report of the State Board of Charities of the State of New York*, I (1906), 456.

the report of the Committee on Standards of Living. Great interest was shown in the subject, and it became very clear during the discussion that there existed a real necessity for an investigation of the cost of providing a "reasonable standard of living" in different communities in New York. Accordingly, resolutions were adopted authorizing and directing the incoming president to appoint a committee of eleven with power to add to its numbers, to investigate and determine: (1) the essentials of a normal standard of living and (2) the cost of such a normal standard of living in the principal cities and towns of the state; and to report its findings to the next Conference and to solicit funds for its expenses in the name of the Conference.

This committee was duly appointed with Dr. Lee K. Frankel, of New York, as chairman, and Professor Robert Coit Chapin, of Beloit College, as secretary, in charge of the investigation. A preliminary report[1] was given to the Conference at its next session, and the committee was continued in order to finish its work. The final report prepared by Dr. Chapin was published in 1909 and made available useful data about family budgets and family expenditure in New York State.

After the publication of Dr. Chapin's study,[2] a great deal of interest was shown in the problem of "budgeting" dependent families, and there developed a growing consciousness among relief organizations that the time had come to turn away from the consideration of general policies and to concentrate on the study of the very important problem of what constitutes so-called "adequate relief" and how it may best be administered.

[1] *Forty-first Annual Report of the State Board of Charities of the State of New York*, I (1907), 456.

[2] Robert Coit Chapin, *The Standard of Living Among Workingmen's Families in New York City* (New York: Russell Sage Foundation, 1909).

Two years later, one of the large relief organizations in New York City issued a pamphlet[1] on methods of economy in the choosing of food. But the first complete family budget, including estimates covering all items necessary for the maintenance of a dependent family, was prepared by Miss Florence Nesbitt, of Chicago, in 1912. Miss Nesbitt was at that time dietitian in the Funds to Parents' Department of the Juvenile Court of Cook County, and upon her estimate of an adequate minimum budget for each dependent family was based the pension granted for the support of the children. This budget, although it had been accepted fairly generally by the Chicago agencies as the standard of relief, was not published until 1913, when it appeared as an appendix to *The Charity Visitor*[2] by Amelia Sears, of the United Charities of Chicago. It was a very short, simple statement of the estimated necessary expenditures of a dependent family living on a minimum-of-subsistence standard.

These expenditures included rent, food, clothing, household furnishings and supplies, heat and light, and other miscellaneous items; and the estimates for them were based upon the current prices which were being paid in neighborhoods in which dependent families lived. These estimates had especial value because they were based upon the knowledge of the home economics expert as to the needs of individual families of varying size and composition, and not upon average expenditures of groups of families.

Since 1913 this "standard budget" has been many

[1] Winifred S. Gibbs, *Lessons in the Proper Feeding of the Family.* Published in 1911 by the New York Association for Improving the Condition of the Poor.

[2] Published by the Chicago School of Civics and Philanthropy, later the Graduate School of Social Service Administration of the University of Chicago.

times amplified and revised in accordance with the higher cost of living and the more complete understanding of what is necessary to maintain a family during the period of its dependency. While the importance of this budget has been recognized since its first formulation, it was not published in pamphlet form until 1918, when it was brought out by the Chicago Council of Social Agencies under the title of *The Chicago Standard Budget*.[1] It is now accepted by the United Charities of Chicago, the Jewish Charities of Chicago, and the "Aid to Mothers" Department of the Juvenile Court as the standard of relief for the families dependent on these agencies for support.

In considering the history of the use of this Budget as a measure of relief, it is interesting to note the development of the idea of what a budget is and what it should provide for a dependent family. In a pamphlet[2] published in 1910, the secretary of the Buffalo Charity Organization Society made the following statement:

> A budget is an estimate of the living cost of the family under *tolerably decent conditions*. It should be kept clearly in mind that the budget is the total cost of living without any reference to what the family is earning or receiving from any source. The budget, less what the family earns, or rather what it ought to earn, and less what the relatives give, or ought to give, is the measure of relief. This is a very simple truth, not always understood.

In the introductory statement in Miss Nesbitt's first "Family Budget,"[3] it is clear that she has progressed beyond the idea of "tolerably decent conditions" to something better, when she says: "In determining what income a family should have in order to maintain the

[1] Extracts from this budget will be found in Appendix A.

[2] Frederick Almy, *Relief*. Reprinted in 1910 by the Charity Organization Department of the Russell Sage Foundation.

[3] Amelia Sears, *The Charity Visitor*, 1913. Published by the Chicago School of Civics and Philanthropy.

health of all and to keep the working members at the point of industrial efficiency, it is necessary to have some basis for estimating the household budget." Again, in a later revised edition of the Budget,[1] she makes the following statement:

> An estimated family budget is a calculation of the expenditures necessary to secure for a family a certain definite standard of living. To be valid, it must cover adequately all the items of expenditure necessary for the maintenance of the standard in question. Such an estimate is used by relief societies as a basis of determining the amount of relief required.

Finally the minimum normal standard was described as follows:

> With all the variations of family life there is a certain indispensable minimum of physical requirements below which it is unsafe for any family to fall. This we may call the minimum normal standard and may define it as the lowest standard which will permit of the full growth, training and development of children and provide for the health and efficiency of adults. The aim of most relief-giving agencies is to provide for its dependents this standard at as low a cost as the condition of the family permits.

In this statement the emphasis is still entirely on physical well-being, but the statement is stronger than the one made in the earlier edition of the Budget, and there is a clear appreciation of the necessity of a standard allowing for "growth and development." In the latest budget estimate[2] prepared by Miss Nesbitt, it is interesting to note that again the standard has risen and that "the minimum normal standard must furnish everything necessary for a manner of living that will make possible a high standard of physical, mental, and moral health and efficiency for adults; the full physical

[1] *The Charity Visitor*, 1917. New and revised edition, published by the Chicago School of Civics and Philanthropy.

[2] Florence Nesbitt, *The Chicago Standard Budget for Dependent Families*, January, 1925. Issued by the Chicago Council of Social Agencies.

and mental growth and development of children, and provision for their moral welfare." As this standard has gradually been raised, the relief agencies have accepted it because of their growing realization of the importance both for individuals and for the community of maintaining among dependent families a standard which means really living, not merely existing, as well as one which does away with the danger of pauperization because it enables a dependent family to enjoy such physical and moral well-being as will insure later independence. Recently, however, questions have arisen as to how high this standard can be raised and what upper limit must be put on the standard for living conditions to be provided for dependent families.

ORGANIZATION OF THE STUDY

The present inquiry into the income and standard of living of unskilled laborers in Chicago had its origin in a discussion in the Committee on Family Social Work of the Chicago Council of Social Agencies over the question as to whether a proposed estimate for a revision of the Standard Budget for Dependent Families did not set a higher standard than that which could be maintained by the families of independent unskilled wage-earners. The Budget estimate,[1] prepared by Miss Nesbitt for the consideration of the Committee, was more liberal in some respects than any of the previous estimates; and objection was made to it on the ground that it would provide more generously for a dependent family than an unskilled wage-earner could provide for his family. This objection revives in a different form the old question as to the applicability of what was called in England the principle of "less eligibility." It will be remembered as one of the famous "principles" of English poor-law re-

[1] See Appendix A.

form in 1834 that the condition of the family living on the rates should be "less eligible" than that of the family of the self-supporting laborer.[1] It is, however, both impossible and unnecessary to go into that question here.

The Committee, after much discussion, decided not to accept the new budget estimates until facts could be collected which would throw light on how the independent unskilled laborer and his family live today in the city of Chicago. In order to secure these facts, it was decided to ask for the co-operation of some of the large employers of unskilled labor in Chicago and of the School of Social Service Administration and the Local Community Research Committee of the University of Chicago. When this co-operation had been secured, a plan of organization[2] was drawn up and accepted by all those interested in the study. According to this plan, the study was to be undertaken under the joint auspices

[1] See, e.g. S. and B. Webb, *English Poor Law Policy*, pp. 84-85, 260-263, and see Index.

[2] The following extract from the plan agreed upon may be of interest. "This study is to be made under the joint auspices of the Chicago Council of Social Agencies and the Committee on Local Community Research of the University of Chicago. The work of research shall be carried on under the direction of the Committee on the Study, operating as a sub-committee of the Executive Committee on Local Community Research. This sub-committee is to be composed of Prof. Harry A. Millis, Chairman, Professors Edith Abbott, Sophonisba P. Breckinridge, and E. W. Burgess, of the University of Chicago, Miss Florence Nesbitt, of the United Charities, and Mr. Wilfred S. Reynolds, Director of the Chicago Council of Social Agencies.

"The Committee on the Study shall also have charge of the assembling of material and its preparation for publication; and of all matters connected with publication, with the understanding, however, that the report shall not contain the names of the cooperating firms unless they expressly wish this to be done, nor the names of any of the persons from whom schedules are obtained. The firms shall be referred to as Company A, Company B, etc.

"The Committee will ask each firm to furnish a list of names of common or unskilled laborers who have been on the firm's payroll for the year 1924. If the records of the firm show the marital and family status of each worker, it will be asked to include in the list only those men who are married and

of the Chicago Council of Social Agencies, the Local Community Research Committee and the School of Social Service of the University of Chicago; and the research was to be directed by a sub-committee of these groups. In addition to this sub-committee, the Council was to organize an advisory committee which should include not only representatives of the University and of the Council of Social Agencies, but also representatives of the industries from whose workers facts were to be obtained. This advisory committee was to pass on the plan for the study and co-operate in such ways as became necessary as the study progressed.

PLAN AND METHOD OF THE STUDY

While helping to formulate the general plan of organization, the committee in charge of the study was also working upon the plan of procedure for the investiga-

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have at least one child under fourteen years. The Committee will make this selection during the course of the study if it is not convenient or possible for the firms to do so at the beginning. When the desired information has been obtained on the schedules from approximately 500 families, the Committee will ask each firm to furnish a statement of the actual earnings for the year 1924 of each employee from whose family a schedule has been obtained. The Committee will keep a record of every name given by the firms which will show the reasons for excluding every family which was not scheduled.

"The Chicago Council of Social Agencies shall organize an Advisory Committee, to be composed of representatives of (1) the social science group at the University, (2) the industries, and (3) the representatives of the Council of Social Agencies especially interested in this study. The Advisory Committee shall be informed upon the progress of the study, and shall advise with reference to methods, emphasis and problems involved in the investigation, and shall cooperate in such other ways as opportunity may afford."

Definition of Terms:

For the purpose of this study the following definition for common or unskilled labor was decided upon:

"Common or unskilled laborers are men who can be put to work without previous training or experience or with such instructions as can be readily given—as in a day. Those men will be excluded whose health may have been

tion. It was clear that there were two main subjects about which information was desired: one relating to the amount of the family income, and the other to the question of the kind of living conditions that could be provided in Chicago out of this income. Briefly stated, these two lines of inquiry were:

1. The extent to which the income of families where the chief wage-earner is an unskilled worker is augmented from sources other than the earnings of the husband and father.

2. The adequacy of the total family income derived from all sources to provide for a normal standard of living.

A collection of family budgets from wage-earners in the unskilled groups was necessary to provide data which would throw light on both of these questions. In planning a budget study, the first problem arising is whether the method of keeping accounts, obviously the most accurate and most desirable method, can be used or whether it is necessary to fall back on estimates of

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undermined by age or physical defect or who are suffering from chronic disease or from the effects of accidents. It is agreed that an effort be made to obtain a random sample of the common or unskilled labor group as above defined, with a due proportion of representation from the different wage rates paid within this group."

It was later found necessary to modify the definition of "common or unskilled laborers" to include semi-skilled men because there seemed to be no accepted standard as to the difference between unskilled and semi-skilled labor. Another change was made necessary because some of the employers stated that their laborers needed more than a day in which to learn their job. In the end it was agreed to select men definitely not of the skilled trades who were engaged in unskilled or semi-skilled work earning approximately $30.00 a week or less. This last stipulation, in turn, could not be rigidly adhered to as some employers pay at a higher rate than others, some give bonuses which raise materially the total earnings of the men, and some have special rates of pay if the work, even of a very simple nature, is very heavy or is done under such difficult conditions as extreme heat, cold, or dampness. Within these rather elastic limits will be found the wage earners whose families were interviewed and from whom information was obtained.

expenditures. Since the account-book method is both expensive and slow, it was decided to use the method of estimates for as many families as could be secured from the employers' lists, and then to select from this larger group a smaller number for actual account keeping. It was hoped that the accounts would provide a check as to the accuracy of the estimates.

With these objects in view, the investigation naturally fell into two parts:

1. A general study of the income and standard of living of an adequate number of families of unskilled wage-earners. For this study a schedule[1] was prepared which was to be taken by field agents to the families whose names appeared on the lists furnished by employers. The facts to be obtained for this schedule included the family composition; the nationality of the parents and their ability to speak English; the number of persons in the household who were employed and the number of weeks in 1924 when each one was employed; the estimated earnings of each; a statement of the actual earnings of the chief wage-earners to be obtained from the employer; the amount of money contributed by each wage-earner to the family fund; the number of roomers and boarders and their contribution to the family fund. There was also a place on the schedule for an estimate by the person interviewed of the total family expenditure for 1924 for living expenses including rent, food, clothing, fuel and light, household supplies, health, education, carfare, insurance, recreation, etc.; and an estimate of savings and debts for 1924. Facts were also to be obtained about housing conditions—the size and location of the apartment or house, the number of rooms, the number of beds, possession and location of toilet or bathroom, and heating and lighting arrangements.

[1] See Appendix B.

Other facts to be obtained were those which would indicate a standard somewhat above a minimum level, such as the possession of an automobile, piano, victrola, radio, or telephone; and indications of poverty as evidenced by the condition of the home and of the family. There was a place also on the schedule for an estimate of the Budget under discussion for each family and for the entry of information obtained from the Social Service Exchange showing the extent to which each family had used the free services provided by the social agencies of the community, such as dispensaries, hospitals, visiting nurses, relief agencies, or recreation centers.

2. An intensive study of a smaller number of families selected from among those giving information for the general study, with special reference to actual expenditure on living expenses. These families were to be asked to keep, for at least one month, account books in which they would enter accurately every day the exact amount of money spent on all purchases and the amount in pounds of all food purchased. It was planned from the analysis of these accounts and the comparison of these analyses with accepted standards of the food requirements for adults and children to secure information concerning the nutritive value of the diets of the families so studied, from which conclusions might be drawn as to whether the standard for food in the Chicago Budget was a reasonable one to set for a dependent family.

METHOD OF PROCEDURE

While the schedule was in course of preparation, the committee was active in enlisting the interest of representative employers of unskilled and semi-skilled laborers. When the purpose of the inquiry was explained, it was usually possible to secure a favorable response to the request for co-operation; and, all together, twelve

firms took part in this project. Their co-operation varied with the extent of their interest and with their individual judgment as to how much each could do. Three firms contributed both lists of names and gifts of money; one gave money alone; and eight, lists of names alone. The United Charities of Chicago and the Jewish Social Service Bureau of Chicago also contributed to the research fund. It was not possible to approach all the firms at any one time, so that the lists of names were received at intervals from January until June, 1925. The names of unskilled and semi-skilled laborers totaled 2,354.

These lists furnished by the employers were in many different forms. Some gave the name, address, occupation, and the rate of pay, and also specified whether the man was on piecework or daywork. Other employers added to these facts the total number of hours worked and a statement of total earnings for each man for the year 1924. One firm gave only the names and addresses, but divided the names into groups representing the unskilled or semi-skilled classes under such headings as the following: "Men who have worked one year or more now earning 48 cents per hour for unskilled labor, who, working a normal period, would earn $24 a week," or "semi-skilled men who have worked one year or more at 54 cents an hour, who, working a normal week, would earn $27 per week," or "colored janitors who have worked more than one year receiving $24 per week." Another firm made this statement: "Our labor is in three classes: (*a*) common at 42½ cents an hour. There are a very few who get 43 cents to 44 cents, but these are in unpleasant jobs (you will see that they are few because our common-labor rate with a minimum of 42½ cents averages under 43 cents); (*b*) semi-skilled, 44½ cents to 52½ cents; (*c*) skilled, 53 cents to 82 cents."

The list from this firm included men from the first two classes. Two other firms gave the marital state of the men and the total number of children and number of dependent children. One firm, in addition to names and addresses, gave average earnings per week for each man in 1924 and 1925. Another gave the names and addresses classified into wage groups—as those earning between $1,400 and $1,500, $1,500 and $1,600, etc., for the year 1924.

When each list was received, a card catalogue was made with the name and address of each man on a separate card. These names were then assigned to the field agents, each of whom worked in different sections of the city. This work began on February 20, 1925. The agents then went from one address to another, interviewing the housewife in each family and asking for the information necessary for the schedules. When the schedules were completed, the agents turned them in to the office together with a report on every family from whom a schedule had not been obtained. There were 1,915 families from whom no information could be secured, but a total of 439 schedules were obtained from families on the lists, and 37 more from families upon whom the agents chanced to call in their search for certain addresses. Nine of the latter group had to be discarded as they were found to be doing skilled work. In many cases those who gave the information were greatly interested in the study and answered the questions with great willingness. If any hesitation or suspicion were shown, the agent was instructed to leave the house without exerting undue pressure in an effort to fill the schedule.

No information was secured from 1,915 families for the following reasons:

1. In 625 cases an incorrect address was given. This was probably due to different causes, such as the inabil-

ity of the men to speak English well enough to be understood when giving their address at the employment office of the plant; the desire of some of them to withhold this information from their employers; the difficulty on the part of the employment offices in keeping such records up-to-date; and the difficulty the field agents found in pronouncing foreign names and in making themselves understood, especially when the women did not speak English.

2. In 715 instances the names given did not comply with the requirement that the man should be married and have at least one dependent child in the home. Of these, 620 were men who had either no children or children who were grown up and self-supporting; 38 were single men; in 19 instances the man had a wife and family in Europe; 38 were married but had no homes because of the death or permanent incapacity of their wives, or because of separation or divorce.

3. In 130 cases the housewife refused to give the information.

4. In 260 cases no information could be secured on the first visit either because of the language difficulty or because it was not possible to find anyone at home. At least one subsequent visit was made in every case but no contact was ever established with these families.

5. In 33 cases the families were living outside of the city limits and so were not eligible for the study.

6. In 9 cases the families had left town since 1924.

7. In 7 cases the living arrangements were so complicated that, in spite of the willingness of the families to give the information, schedules could not be obtained.

8. In 42 cases the man was not regularly employed in 1924.

9. In 94 instances the families were not visited as it

was necessary because of the limitations of time and money to stop the field work on August 31, 1925.

When the schedules were completed, a letter was sent to each of the co-operating firms asking for a statement of actual earnings for each man for the year 1924. The replies to this request were as follows:

Firm	Names Supplied	Schedules Obtained	Statements of Earnings
A	623	183	173
J	530	100	93
C	258	28	28
D	250	14	14
K	169	23	23
E	109	8	8
G	105	39	32
F	100	16	16
I	86	3	2
L	80	20	19
B	44	5	5
M*	0	37†	13‡
Total	2,354	476	426

* This is the group whose names were not on lists furnished by employers.

† Nine of these are skilled workmen and are not included in the tabulations.

‡ Three of these are skilled and are not included in the study.

Firm A could not give yearly estimates for 10 men because through a clerical error these men were on the lists although they had been employed only for a short time in 1924. The same thing is true in the case of firms G, I, and J. In group M it was impossible to identify the firms for whom 9 men were said to work, so no information could be obtained as to their wages. Letters were written to the 24 firms which could be identified, asking information concerning the wages of the other 28 men. One of these firms—a public department—refused information; 4 could not find the names on their pay-roll for 1924; 14 sent the desired information; and 5 firms failed to reply. They all showed an interest in the study

and a desire to co-operate. Several requested that the information be considered confidential.

The field work occupied approximately eight months. The schedules were corrected immediately after they were handed in, and the work was so organized that the tabulation of the schedules was begun in October. In the material which has been assembled, facts should be found which will throw new light on two important questions (1) the total income of families of unskilled laborers; together with information showing how far this income is derived from the chief wage-earner, to what extent it is supplemented from other sources, what those sources are, and whether, when all possible sources have been utilized, a "normal standard" of living is maintained; (2) the relation of this standard to that set up by the Chicago Standard Budget in order to ascertain whether the Chicago Budget is seeking to create for dependent families an unreasonably high standard of living. In the following chapters the results, as finally analyzed, are presented.

CHAPTER II

THE CHIEF WAGE-EARNER

Of primary importance, in considering the total income of the 467 families included in this study, is the part played by the father of the family, or the chief wage-earner. In this connection it must be remembered that the co-operating employers had been asked to furnish names of unskilled or semi-skilled laborers who had been fully employed in 1924. It was also understood that these men were all "employable," that is to say, that they were able-bodied and could do a full day's work of heavy manual labor. It was hoped in this way to exclude the question of unemployment, which is outside the scope of this study, as is also the question of unemployable or handicapped men.

AGES OF CHIEF WAGE-EARNERS AND LENGTH OF EMPLOYMENT

Before discussing facts relating to employment and wages, there are certain data to present about this group of men which are of significance and interest. These deal with age, nationality, and race. Table 1 gives the age groups to which the men belong.

This table shows that 333, or approximately three-fourths of the men, were young men, under forty-five years of age. In considering the fact that 112 men, or 25 per cent, were forty-five years of age or over, it must be borne in mind that this group of unskilled laborers belonged in a very fortunate group, as they were men whose names were carried on the books[1] of their em-

[1] This does not necessarily mean that these men were at work continuously without any days of unemployment in 1924.

ployers during the entire year. It is safe to assume that, in general, this would indicate a group of men who had been a relatively long time on the employers' pay-rolls, who were probably in the better class of employees, and who would be among the last to be laid off in time of industrial depression. This assumption is borne out by the facts in Tables II and II A in regard to the period of employment with the different firms.

TABLE I

WAGE-EARNERS OF SPECIFIED AGES; NUMBER AND PER CENT DISTRIBUTION

Age Groups	Number	Per Cent Distribution
Total	467	.....
Not reported	22	.....
Total reported	445	100.0
Under 25 years	5	1.1
25 and under 35 years	108	24.3
35 and under 45 years	220	49.4
45 and under 55 years	93	20.9
55 and under 65 years	17	3.8
65 years and over	2	.5

While very often the unskilled or semi-skilled laborer is the casual laborer, going from job to job, and easily replaced because of the simple nature of his work, these men had, on the whole, been a long time on the pay-rolls of the firms employing them. Only 49, or 10.8 per cent, had been employed for less than two years. Of even greater importance is the fact that 47.8 per cent had been in the employ of one firm for at least five years, and 23 per cent had a period of employment of ten years or over. In the light of these figures, the assumption that these men form a very favorably situated group of unskilled or semi-skilled workers whose work records were good and whose services were valuable to the firms, seems to be sustained.

TABLE II

CHIEF WAGE-EARNERS CLASSIFIED ACCORDING TO LENGTH OF EMPLOYMENT BY FIRM; NUMBER AND PER CENT DISTRIBUTION

NUMBER OF YEARS EMPLOYED BY FIRM	CHIEF WAGE-EARNERS	
	Number	Per Cent Distribution
Total	467	.....
Not reported	15	.....
Total reported	452	100.0
Less than one	15*	3.3
1 and less than 2	34	7.5
2 and less than 3	84	18.6
3 and less than 4	74	16.4
4 and less than 5	29	6.4
5 and less than 10	112	24.8
10 and less than 15	51	11.3
15 and less than 20	31	6.9
20 and less than 25	16	3.5
25 or over	6	1.3

* These men were employed less than one year by the firms supplying their names. They were, however, according to their own statements, fully employed during 1924 and so were included in the study.

TABLE II A

CHIEF WAGE-EARNERS CLASSIFIED ACCORDING TO LENGTH OF EMPLOYMENT BY FIRM; CUMULATIVE PERCENTAGES

Number of Years Employed by Firm	Cumulative Percentages
Total	100.0
Less than 1	3.3
1 and over	96.7
2 and over	89.2
3 and over	70.6
4 and over	54.2
5 and over	47.8
10 and over	23.0
15 and over	11.7
20 and over	4.8
25 and over	1.3

RACE AND NATIONALITY OF CHIEF WAGE-EARNERS

Since it was felt that income was the determining factor in the present study, no effort was made to secure from the employers any specified proportion of the different races and nationalities. The resulting numbers of

TABLE III

RACE OF CHIEF WAGE-EARNERS

RACE	CHIEF WAGE-EARNERS	
	Number	Per Cent Distribution
Total	467	100.0
White	380	81.4
Colored	87	18.6

TABLE IV

RACE OF THE ADULT MALE POPULATION OF CHICAGO TWENTY-ONE YEARS OF AGE AND OVER, IN 1920, AND OF THE CHIEF WAGE-EARNERS STUDIED; NUMBER AND PER CENT DISTRIBUTION

RACE	ADULT MALE POPULATION OF CHICAGO IN 1920*		CHIEF WAGE-EARNERS	
	Number	Per Cent Distribution	Number	Per Cent Distribution
Total	874,239	100.0	467	100.0
White	828,951	94.8	380	81.4
Negro	42,837	4.9	87	18.6
All others	2,451	.3	.....	

* *Fourteenth Census of the United States*, Vol. III.

white and colored families are shown in Table III. This table shows 380 white families and 87 Negro families. To give this statement more significance, a comparison was made with the figures for the adult male population in Chicago in 1920. The result is shown in Table IV.

When the relative numbers of Negro and white workers are compared with the Census figures for 1920

(Table IV), it will be seen that, while 18.6 per cent of the unskilled laborers studied were Negro, only 4.9 per cent of the adult male population in Chicago in 1920 were of that race. The difference is undoubtedly explained by the fact that, especially since the war and the restriction of immigration, the Negro has been taking the place of

TABLE V

COUNTRY OF BIRTH OF CHIEF WAGE-EARNERS; NUMBER AND PER CENT DISTRIBUTION

COUNTRY OF BIRTH	WAGE-EARNERS	
	Number	Per Cent Distribution
Total	467	.....
Not reported	3*	.....
Total reported	464	100.0
United States†	131	28.3
Foreign born:		
Poland	138	29.7
Italy	72	15.5
Other Slavic countries‡	32	6.9
Lithuania	28	6.1
Czechoslovakia	9	1.9
Germany	9	1.9
Hungary	9	1.9
Holland	7	1.5
Scandinavia	5	1.1
Ireland	5	1.1
All others	19	4.1

* These three were foreign-born, but country of birth was not specified.

† Includes 87 Negroes.

‡ Includes Russia and Jugoslavia.

the Southeastern European immigrant in doing the simpler kinds of labor.

Table V shows the country of birth of the chief wage-earners. Among them there is a great diversity of nationalities, with nearly three-fourths of the whole number foreign-born. This is to be expected, because in the past the ranks of unskilled labor have been so largely recruited from the immigrant peoples from Eu-

rope, while the native-born tend to go into the skilled trades or into some other of the higher occupational callings. From this table it can be seen that 131, or 28.3 per cent, were native-born, but it should be noted that 87 of these were Negroes, leaving only 44 native-born white men in this group. Of the foreign-born, the largest groups are the Poles, the Italians, and the Lithuanians. This is not surprising, as the unskilled laborer most commonly comes from Southern or Eastern Europe and is a part of the so-called "new immigration." When to

TABLE VI

NATIVITY OF ADULT MALE POPULATION OF CHICAGO IN 1920 AND OF CHIEF WAGE-EARNERS STUDIED; NUMBER AND PER CENT DISTRIBUTION

NATIVITY	ADULT MALE POPULATION OF CHICAGO IN 1920*		CHIEF WAGE-EARNERS	
	Number	Per Cent Distribution	Number	Per Cent Distribution
Total.....	874,239	100.0	467	100.0
Native-born.....	469,823	53.7	131	28.1
Foreign-born.....	404,416	46.3	336	71.9

* *Fourteenth Census of the United States.* Vol. III.

these three nationalities are added the Hungarians, the Czechs, the Russians, and the Jugoslavs, the result is a total of 288, or 62 per cent from Southern and Eastern Europe; while the Northern and Western Europeans number 26, or 5.6 per cent. A comparison of the nativity of these wage-earners with that of the adult male population of Chicago in 1920 is shown in Table VI.

A comparison of this nationality grouping with figures from the 1920 Census for the adult male population, shows that as regards the distribution of native and foreign-born the figures are very different. In Chicago in 1920, 53.7 per cent of the adult male population were

native-born, and 46.3 per cent foreign-born. In the group under consideration, 28.1 per cent were native-born, and 71.9 per cent foreign-born. This is due, of course, to the fact that this group is composed only of unskilled and semi-skilled laborers and belongs in the lower economic level where the foreign-born predominate.

ABILITY TO SPEAK ENGLISH

While there were 336 foreign-born laborers studied, it is interesting to note that only 79 of them, or 23.5 per cent, were unable to speak English. As it is shown later in this report that almost half of them had been in the employ of their firms for five or more years, and probably in this country for even a longer period, this is not a surprising proportion. It must also be remembered that there was undoubtedly a larger proportion of non-English-speaking husbands among the families from whom schedules could not be secured (see page 14).

EARNINGS OF CHIEF WAGE-EARNERS

Passing on to the important subject of wages, it is interesting to note that the range of wages paid was very wide, varying from $800 a year to $2,200 and over. The reason for this, as has already been stated, is that there seems to be no exact definition of the terms "unskilled" and "semi-skilled" labor, and wages vary greatly between firms and are influenced by the conditions of work. Higher pay frequently accompanies work which, while simple in itself, is done under difficult conditions. Besides this, one of the firms concerned had a bonus system which brought the total payment to each man to an unusually high figure. Schedules were obtained for only 20 men from this firm, 13 of whom received over $1,500, and 6 of these received over $1,800.

It must be recalled here that data regarding wages

were obtained from two sources: (1) estimates made by the housewives, at the time the schedule was taken, of their husbands' yearly earnings; (2) statements obtained directly from the employers showing the exact yearly earnings of each man. In all the tables concerning the

TABLE VII

EARNINGS OF CHIEF WAGE-EARNERS CLASSIFIED BY RACE; NUMBER AND PER CENT DISTRIBUTION (DATA FROM PAY-ROLLS)

EARNINGS OF CHIEF WAGE-EARNER	CHIEF WAGE-EARNERS OF SPECIFIED RACE					
	Total		White		Colored	
	Number	Per Cent Distribution	Number	Per Cent Distribution	Number	Per Cent Distribution
Total	467	.....	380	.....	87	.....
Not reported	44*	.....	37	.....	7	.....
Total reported	423	100.0	343	100.0	80	100.0
$800–$899	6	1.4	5	1.5	1	1.3
$900–$999	11	2.6	7	2.0	4	5.0
$1,000–$1,099	40	9.5	22	6.4	18	22.5
$1,100–$1,199	50	11.8	33	9.6	17	21.2
$1,200–$1,299	63	14.9	48	14.0	15	18.7
$1,300–$1,399	63	14.9	60	17.5	3	3.8
$1,400–$1,499	81	19.2	74	21.6	7	8.7
$1,500–$1,599	45	10.6	37	10.8	8	10.0
$1,600–$1,699	24	5.7	22	6.4	2	2.5
$1,700–$1,799	20	4.7	15	4.3	5	6.3
$1,800–$1,899	6	1.4	6	1.8	.....	.....
$1,900–$1,999	7	1.7	7	2.0	.....	.....
$2,000–$2,099	2	.5	2	.6	.....	.....
$2,100–$2,199	4	.9	4	1.2	.....	.....
$2,200–$2,299	.....	.....	.....	.....	.....	.....
$2,300–$2,399	1	.2	1	.3	.....	.....

* It was impossible to secure the employers' statements of earnings for these men, most of whom were not on the lists furnished for the study. The statements of estimated wages were secured for each man, but were not used in this table.

earnings of the chief wage-earner, the data presented are those furnished from the pay-rolls of the employers. Tables VII and VII A show the range of earnings of the 467 chief wage-earners.

A study of these tables shows that for the great majority of the men, wages ranged between $1,000 and

$1,800. Only 17 men, or 4.0 per cent, received less than $1,000; and only 20 men, or 4.7 per cent, earned $1,800 or more. It is probably more important to note the numbers which fall within the different wage groups, as this illustrates the earning power of the chief wage-earners in the 467 families. It will be seen that 107 men, or 25.3

TABLE VII A

EARNINGS OF CHIEF WAGE-EARNERS CLASSIFIED BY RACE; CUMULATIVE PERCENTAGES

EARNINGS OF CHIEF WAGE-EARNER	CHIEF WAGE-EARNERS OF SPECIFIED RACE		
	Cumulative Percentages		
	Total	White	Colored
Less than $900	1.4	1.5	1.3
Less than $1,000	4.0	3.5	6.3
Less than $1,100	13.5	9.9	28.8
Less than $1,200	25.3	19.5	50.0
Less than $1,300	40.2	33.5	68.7
Less than $1,400	55.1	51.0	72.5
Less than $1,500	74.3	72.6	81.2
Less than $1,600	84.9	83.4	91.2
Less than $1,700	90.6	89.8	93.7
Less than $1,800	95.3	94.1	100.0
Less than $1,900	96.7	95.9	.....
Less than $2,000	98.4	97.9	.....
Less than $2,100	98.9	98.5	.....
Less than $2,200	99.8	99.7	.....
Less than $2,300	99.8	99.7	.....
Less than $2,400	100.0	100.0	.....

per cent, earned less than $1,200; 233, or 55.1 per cent, earned less than $1,400; 359, or 84.9 per cent, earned less than $1,600; while 403, or 95.3 per cent, earned less than $1,800.

In comparing the wages of the white workers with those of the colored workers, a great difference is apparent. While 50 per cent of the Negroes earned less than $1,200, only 19.5 per cent of the white workers were in this group. Nearly three-fourths of the Negroes

earned less than $1,400, as compared with 51.0 per cent of the white workers. In the wage groups earning over $1,500 there is closer relationship in the percentage of both races; but, while there are no Negroes earning over $1,800, there are twenty white workers—a small number, but one further indication of the disparity existing between the earnings of the two races.

EARNINGS OF MEN IN RELATION TO AGE GROUPS AND LENGTH OF TIME WITH FIRMS

After analyzing the earnings, it is interesting to consider whether there is any relation to be found between

TABLE VIII

EARNINGS OF CHIEF WAGE-EARNERS DURING 1924 CLASSIFIED BY AGE (DATA FROM PAY-ROLLS)

EARNINGS OF CHIEF WAGE-EARNER	NUMBER OF CHIEF WAGE-EARNERS OF SPECIFIED AGES							
	Total	Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 or Over	Not Reported
Total	467	5	108	220	93	17	2	22
Not reported	44	.....	17	18	9	.....	.....	.....
Total reported	423	5	91	202	84	17	2	22
$800–$899	6	.....	.....	4	1	1	.....	.....
$900–$999	11	.....	1	2	5	2	.....	1
$1,000–$1,099	40	1	13	14	6	2	1	3
$1,100–$1,199	50	.....	11	20	11	3	.....	5
$1,200–$1,299	63	1	16	29	13	1	.....	3
$1,300–$1,399	63	.....	9	35	14	2	1	2
$1,400–$1,499	81	1	18	42	15	2	.....	3
$1,500–$1,599	45	1	11	25	7	.....	.....	1
$1,600–$1,699	24	1	.....	11	9	2	.....	1
$1,700–$1,799	20	.....	6	10	2	1	.....	1
$1,800–$1,899	6	.....	2	4	.....	.....	.....	.....
$1,900–$1,999	7	.....	2	3	.....	1	.....	1
$2,000–$2,099	2	.....	.....	1	1	.....	.....	.....
$2,100–$2,199	4	.....	2	1	.....	.....	.....	1
$2,200–$2,299	.....	.....	.....	.....	.....	.....	.....	.....
$2,300–$2,399	1	.....	.....	1	.....	.....	.....	.....

the earnings of these wage-earners and their ages. Table VIII indicates that such a relation does not exist to any

marked extent. The younger men do not appear to any disproportionate extent in the higher wage levels. It is only in the age group between fifty-five and sixty-four that there seems to be a larger proportion in the lower levels, although this group also has its representation in the higher wage groups.

TABLE IX

EARNINGS OF CHIEF WAGE-EARNERS CLASSIFIED BY NUMBER OF YEARS WITH FIRM (DATA FROM PAY-ROLLS)

EARNINGS OF CHIEF WAGE-EARNER	NUMBER OF CHIEF WAGE-EARNERS EMPLOYED BY FIRM FOR A SPECIFIED NUMBER OF YEARS											
	Total	Less Than 1	1 and Less Than 2	2 and Less Than 3	3 and Less Than 4	4 and Less Than 5	5 and Less Than 10	10 and Less Than 15	15 and Less Than 20	20 and Less Than 25	25 or Over	Not Reported
Total	467	15	34	84	74	29	112	51	31	16	6	15
Not reported	44	11	4	7	2	2	8	1	2	2	...	5
Total reported	423	4	30	77	72	27	104	50	29	14	6	10
$800–$899	6	...	1	1	1	...	2	1	...	...	...	...
$900–$999	11	...	1	2	1	1	1	1	2	...	1	1
$1,000–$1,099	40	2	1	13	8	5	6	1	2	...	...	2
$1,100–$1,199	50	...	5	7	10	4	10	9	2	1	1	1
$1,200–$1,299	63	1	7	10	10	3	15	9	4	2	...	2
$1,300–$1,399	63	1	5	13	12	7	12	6	2	2	3	...
$1,400–$1,499	81	...	5	16	12	6	23	6	5	5	1	2
$1,500–$1,599	45	...	1	6	7	1	17	8	4	1	...	...
$1,600–$1,699	24	...	2	4	7	...	5	3	1	2	...	...
$1,700–$1,799	20	...	1	1	2	...	9	4	2	...	...	1
$1,800–$1,899	6	...	...	1	1	...	2	1	1	...	...	...
$1,900–$1,999	7	...	...	1	1	...	1	1	2	...	...	1
$2,000–$2,099	2	...	1	...	...	...	...	...	...	1	...	...
$2,100–$2,199	4	...	...	...	...	...	1	...	2	...	...	...
$2,200–$2,299	...	...	...	1	...	...	...	...	...	...	...	...
$2,300–$2,399	1	...	...	1	...	...	...	...	...	...	...	...

A question closely related to this one is the length of service with the firm and its possible relation to wages. This is shown in Table IX.

On the whole, these men had been in the employ of their firms for unusually long periods for this type of labor, as 47.8 per cent had a period of service of five

years or more and 23 per cent had a period of service of ten years or more. The table, however, fails to show that higher wages accompany long periods of service; but, on the other hand, it indicates that in unskilled and semi-skilled labor the pay is fixed by the kind of work done and not by length of service.

TABLE X

EARNINGS OF CHIEF WAGE-EARNERS CLASSIFIED BY NUMBER OF YEARS WITH FIRM: WHITE WORKERS ONLY

EARNINGS OF CHIEF WAGE-EARNER	NUMBER OF CHIEF WAGE-EARNERS EMPLOYED BY FIRM A SPECIFIED NUMBER OF YEARS											
	Total	Less Than 1	1 and Less Than 2	2 and Less Than 3	3 and Less Than 4	4 and Less Than 5	5 and Less Than 10	10 and Less Than 15	15 and Less Than 20	20 and Less Than 25	25 or Over	Not Reported
Total	380	13	24	57	55	22	93	51	30	16	6	13
Not reported	37	10	3	5	2	2	5	1	2	2	...	5
Total reported	343	3	21	52	53	20	88	50	28	14	6	8
$800–$899	5	...	1	1	1	...	1	1	...	...	...	...
$900–$999	7	...	...	1	...	1	...	1	2	...	1	1
$1,000–$1,099	22	1	1	6	4	2	4	1	2	...	...	1
$1,100–$1,199	33	...	2	1	3	4	9	9	2	1	1	1
$1,200–$1,299	48	1	4	7	6	1	12	9	4	2	...	2
$1,300–$1,399	60	1	5	11	12	7	11	6	2	2	3	...
$1,400–$1,499	74	...	4	13	11	5	22	6	5	5	1	2
$1,500–$1,599	37	...	1	6	6	...	12	8	3	1	...	...
$1,600–$1,699	22	...	2	2	7	...	5	3	1	2	...	...
$1,700–$1,799	15	...	...	...	1	...	8	4	2	...	...	...
$1,800–$1,899	6	...	...	1	1	...	2	1	1	...	...	...
$1,900–$1,999	7	...	...	1	1	...	1	1	2	...	...	1
$2,000–$2,099	2	...	1	...	...	...	...	...	...	1	...	...
$2,100–$2,199	4	...	...	1	...	...	1	...	2	...	...	...
$2,200–$2,399	1	...	...	1	...	...	...	...	...	...	...	...

A separate study of the same subject was made for the different races. The results for the two groups are shown in Tables X and XI.

In studying these two tables, the striking fact which appears at once is that it is almost entirely among the white laborers that the very long period of service, ten years or more, appears. There are 103 white laborers in

these groups, as contrasted with one Negro. This, of course, is at least partially explained by the fact that the great migration of Negroes to Chicago has occurred during the last ten years and that it is within this period that they have begun in considerable numbers to take the places hitherto held by the unskilled white laborers.

TABLE XI

EARNINGS OF CHIEF WAGE-EARNERS CLASSIFIED BY NUMBER OF YEARS WITH FIRM: COLORED WORKERS ONLY

EARNINGS OF CHIEF WAGE-EARNER	NUMBER OF CHIEF WAGE-EARNERS EMPLOYED BY FIRM A SPECIFIED NUMBER OF YEARS											
	Total	Less Than 1	1 and Less Than 2	2 and Less Than 3	3 and Less Than 4	4 and Less Than 5	5 and Less Than 10	10 and Less Than 15	15 and Less Than 20	20 and Less Than 25	25 or Over	Not Reported
Total	87	2	10	27	19	7	19	...	1	...	...	2
Not reported	7	1	1	2	...	...	3	...	...	...	...	...
Total reported	80	1	9	25	19	7	16	...	1	...	...	2
$800–$899	1	...	...	...	...	...	1	...	...	...	...	...
$900–$999	4	...	1	1	1	...	1	...	...	...	...	...
$1,000–$1,099	18	1	...	7	4	3	2	...	...	...	...	1
$1,100–$1,199	17	...	3	6	7	...	1	...	...	...	...	...
$1,200–$1,299	15	...	3	3	4	2	3	...	...	...	...	...
$1,300–$1,399	3	...	...	2	...	...	1	...	...	...	...	...
$1,400–$1,499	7	...	1	3	1	1	1	...	...	...	...	...
$1,500–$1,599	8	...	...	...	1	1	5	...	1	...	...	...
$1,600–$1,699	2	...	...	2	...	...	...	...	...	...	...	...
$1,700–$1,799	5	...	1	1	1	...	1	...	...	...	...	1

These tables show also that in the separate racial groups there is again no relationship between wages and length of service. The white laborers, as it has already been shown, earn higher wages than the Negroes; but in neither case do their wages rise with length of service.

TIME LOST

While this study is concerned only with men who were fully employed, an attempt was made to secure information as to the amount of time that each man lost

during the year and the reason for this lost time. The statements obtained, however, must be considered only as estimates as they were given by the housewife or

TABLE XII

CAUSES OF TIME LOST BY CHIEF WAGE-EARNERS (DATA FROM FAMILY SCHEDULES)

CAUSES OF TIME LOST	CHIEF WAGE-EARNERS	
	Number	Per Cent Distribution
Total	467	.....
Not reported	6	.....
Total reported	461	100.0
No time lost	222	48.2
Sickness	138	29.9
No work	76	16.5
Sickness and no work	25	5.4

TABLE XIII

LENGTH OF TIME LOST BY CHIEF WAGE-EARNERS (DATA FROM FAMILY SCHEDULES)

NUMBER OF WEEKS IDLE	CHIEF WAGE-EARNERS	
	Number	Per Cent Distribution
Total	467	.....
Not reported	12	.....
Total reported	455	100.0
None	222	48.8
Less than 2	46	10.1
2 and less than 4	61	13.4
4 and less than 6	34	7.5
6 and less than 8	21	4.6
8 and less than 12	39	8.6
12 and less than 16	21	4.6
16 and less than 20	6	1.3
20 or more	5	1.1

some other member of the family at the time the schedule was taken; they have not been verified from the employers' records. The first questions to be considered in

this connection were the number who were idle for some length of time and the reasons therefor. This is shown in Table XII.

For only 222 men, or 48.2 per cent, was no idleness reported during the year. Of the 239 reporting idleness,

TABLE XIV

NUMBER OF WEEKS IDLE AND EARNINGS OF CHIEF WAGE-EARNERS (DATA FOR EARNINGS FROM PAY-ROLLS; DATA FOR TIME LOST FROM FAMILY SCHEDULES)

EARNINGS OF CHIEF WAGE-EARNER	NUMBER OF CHIEF WAGE-EARNERS WHO WERE IDLE A SPECIFIED NUMBER OF WEEKS										
	Total	Not Idle	Less Than 2	2 and Less Than 4	4 and Less Than 6	6 and Less Than 8	8 and Less Than 12	12 and Less Than 16	16 and Less Than 20	20 or More	Not Reported
Total	467	222	46	61	34	21	39	21	6	5	12
Not reported	44	14	1	6	2	5	1	5	4	5	1
Total reported	423	208	45	55	32	16	38	16	2	....	11
$800–$899	6	3	....	....	1	1	1	....	....	....	....
$900–$999	11	6	2	....	1	....	1	1	....	....	....
$1,000–$1,099	40	14	9	8	1	1	2	1	1	....	3
$1,100–$1,199	50	29	7	6	4	1	2	1	....	....	....
$1,200–$1,299	63	29	5	8	3	....	9	4	1	....	4
$1,300–$1,399	63	35	7	8	5	2	4	2	....	....	....
$1,400–$1,499	81	37	3	12	6	8	9	3	....	....	3
$1,500–$1,599	45	25	4	4	3	2	4	2	....	....	1
$1,600–$1,699	24	10	3	3	5	1	2	....	....	....	....
$1,700–$1,799	20	8	2	4	3	....	2	1	....	....	....
$1,800–$1,899	6	5	....	....	....	....	1	....	....	....	....
$1,900–$1,999	7	3	2	....	....	....	1	1	....	....	....
$2,000–$2,099	2	1	1	....	....	....	....	....	....	....	....
$2,100–$2,199	4	2	....	2	....	....	....	....	....	....	....
$2,200 and over	1	1	....	....	....	....	....	....	....	....	....

138 gave sickness as the cause, while 76 reported "no work."

The amount of time lost was the next subject to be considered and the data on this point are shown in Table XIII. These periods of idleness are, on the whole, rather long, as only 107 men report lost time for 4 weeks or less,

while 126 report longer periods of idleness, with 11 of these reporting 16 weeks or more with no work.

An attempt was made to see if there was a relationship between the amount of time lost and wages, and these facts are presented in Table XIV.

Table XIV does not indicate that the men with the longest periods of idleness were in the lowest wage groups. In fact, some of the men for whom long periods of lack of work were reported are in the high wage groups. The reason for this may be that they were in the higher-grade occupations, or it may be merely due to the inaccuracy of the statements obtained on the schedules from the housewives. It is often difficult for the wife to remember exactly the length of an illness or the month, or even the year, in which it occurred; and frequently the wife does not know definitely the length of a layoff. Moreover, in families of this economic level the situation to be faced when the main source of income is withdrawn, is so serious that there might well be a tendency to exaggerate its length.

COMPARISON OF EARNINGS AS ESTIMATED AND AS REPORTED BY THE EMPLOYERS

When this study was planned it was felt that, because of the co-operation of the employers and their willingness to furnish reports of the total earnings of each man for the year 1924, it would be possible to secure facts which might throw light on the validity of the methods which have been employed in other studies to obtain information concerning earnings. Generally speaking, it may be said that the method of estimating has been used most frequently. That is to say, when a family is visited, the housewife is asked for a statement of the earnings of the wage-earners in the family. This

was the method used in Dr. Chapin's study,[1] and he comments upon it as follows:

> Among the difficulties encountered was a tendency in some cases to exaggerate in statements of earnings and expenditures, partly from pardonable pride in making as good a showing as possible, partly from a method of estimating food expenditures on the basis of a week's outlay. . . . . The opposite tendency to underestimate appeared in a few cases, prompted apparently by a desire to make out as bad a case as possible. . . . .
>
> It would be absurd to claim for these family reports the exactness of a bank statement. But, although only approximations, they were carefully prepared. . . . . No doubt the total income was often misstated through failure to make an exact allowance for days of unemployment. . . . . Some of these inaccuracies would counterbalance one another, and be eliminated in the process of averaging. Thus, the tendency to exaggeration would be offset by the tendency to concealment. It would not be safe to suppose that all errors would disappear by any such magic process, however, especially with no more cases than in the present instance.

In the studies of the cost of living made by the Bureau of Labor Statistics of the United States Department of Labor, the method used is described as follows:

> The data for this study were secured, as in former studies, through personal visits by agents of the Bureau to the homes of wage earners and small salaried men, where, by means of interviews with the wife or other members of the family, information was obtained relative to the income and expenditures of the family for the period of one year.[2]

Many of the studies conducted by the United States Children's Bureau, in dealing with problems of child welfare, have laid stress on the financial condition of the families studied, and for this reason have attempted to secure information concerning earnings as the most im-

[1] Robert Coit Chapin, *Standard of Living Among Workingmen's Families in New York City* (New York: Russell Sage Foundation, 1909), pp. 30–31.

[2] *Cost of Living in the United States*, 1924.

portant source of income. Here again, the usual method[1] has been to question the housewife as to the earnings of the employed persons in the family. While no claim is made that these estimates are exact, the attitude of the Bureau is expressed in the following sentence:[2] "It is believed the information secured is sufficiently accurate for the purposes for which it has been used."

In one inquiry made under the direction of the Woman's Bureau,[3] a method of securing earnings was used which is in some respects similar to the one used in this study. It is described in the report as follows:

> In making the investigation the method followed was to interview all men and women in each plant, securing from them information as to their industrial history and present condition: i.e., present wage and occupation, age at beginning work, time in the trade and in present occupation, number of weeks not at work during the past year, reasons for not working, days worked during the past week, usual daily and weekly hours. . . . . When this information had been secured for all the men and women employed in the plant, the pay-rolls were studied and the weekly earnings of each person for as many weeks as he or she had been with the firm during the year April, 1919, to April, 1920, were recorded with the rest of the information secured about him.

In this way both estimated and actual earnings were secured, but the figures taken from the pay-rolls were used in drawing up the report and no effort seems to have been made to compare the accuracy of the estimated earnings with the actual earnings.[4]

[1] *U.S. Children's Bureau Publication No. 112, Infant Mortality: Results of a Field Study in Gary, Indiana* (1923); *ibid., No. 102,* Helen Russell Wright, *Children of Wage-Earning Mothers* (1922).

[2] *Ibid., No. 106, Child Labor and the Welfare of Children in an Anthracite Coal Mining District.*

[3] *U.S. Women's Bureau Bulletin No. 30, The Share of Wage-Earning Women in Family Support.*

[4] Reference might also be made to another method of using employers' pay-rolls as described by B. Seebohm Rowntree in his well-known book *Poverty, a Study in Town Life* (London, 1901).

In this study, as has been stated, the employers have provided the actual earnings for the year 1924 in almost every case in which a schedule was obtained. As these statements, for the most part, were not obtained until after the family had been visited and the information secured, the investigators were able to get from the families their estimates of the wages uninfluenced by any knowledge of what the actual earnings were. The method of obtaining these estimates was usually that

TABLE XV

COMPARISON OF ESTIMATED EARNINGS WITH ACTUAL EARNINGS OF WAGE-EARNERS

ESTIMATED EARNINGS IN EXCESS OF, OR BELOW, ACTUAL EARNINGS	WAGE-EARNERS	
	Number	Per Cent Distribution
Total	467	.....
Not reported	46*	.....
Total reported	421	100.0
Estimated earnings below actual earnings	287	68.2
Estimated earnings in excess of actual earnings	121	28.7
Estimated earnings the same as actual earnings	13	3.1

* In 44 of these cases the employers' statement of actual earnings was not reported; in the other 2 cases the estimated earnings were not reported.

of asking the housewife what her husband earned every week, and by multiplying that figure by the number of weeks during the year that he was reported to have worked at that wage. A comparison of the earnings as thus estimated and as reported by the employers is given in Table xv.

When a comparison was made between the estimates and the employers' statements, it was found that only thirteen estimates were entirely correct and that these estimates were either for men who were paid a certain fixed sum by the month, or that these families had been given statements of earnings by the employers, so that in reality their statements were not estimates, but the

actual earnings for 1924. In 287 instances, or 68.2 per cent of the cases, the estimated earnings were smaller than the actual earnings; and in 121, or 28.7 per cent, the estimated earnings were larger. The percentages of error in the estimates are shown in Table XVI.

TABLE XVI

PERCENTAGE OF ERROR IN ESTIMATED EARNINGS AS COMPARED WITH ACTUAL EARNINGS REPORTED BY EMPLOYERS

PERCENTAGE OF ERROR IN ESTIMATED EARNINGS	WAGE-EARNERS WHOSE ESTIMATED EARNINGS ARE ABOVE OR BELOW ACTUAL EARNINGS							
	Total		No Change	Above		Below		Earnings Not Reported
	Number	Per Cent Distribution		Number	Per Cent Distribution	Number	Per Cent Distribution	
Total	467	.....	13	121	.....	287	.....	46
Not reported	46	.....	.....	.....	.....	.....	.....	46
Total reported	421	100.0	13	121	100.0	287	100.0	.....
No difference	13	3.1	13	.....	.....	.....	.....	.....
Less than 5	105	24.9	.....	50	41.3	55	19.2	.....
5–9	83	19.7	.....	27	22.3	56	19.5	.....
10–19	100	23.8	.....	30	24.8	70	24.4	.....
20–29	53	12.6	.....	10	8.3	43	15.0	.....
30–39	27	6.4	.....	4	3.3	23	8.0	.....
40–49	11	2.6	.....	.....	.....	11	3.8	.....
50–59	9	2.1	.....	.....	.....	9	3.1	.....
60–69	7	1.7	.....	.....	.....	7	2.4	.....
70–79	2	.5	.....	.....	.....	2	.7	.....
80–89	1	.2	.....	.....	.....	1	.4	.....
90–99	2	.5	.....	.....	.....	2	.7	.....
100–149	5	1.2	.....	.....	.....	5	1.7	.....
150 and over	3	.7	.....	.....	.....	3	1.1	.....

As to the extent to which there was an overestimate or an underestimate, Table XVI shows that of the men whose estimated earnings were smaller than the actual earnings (whose wives were therefore underestimating), there were only 55, or 19.2 per cent, of the total number in this group, with an error of less than 5 per cent; while in the group of 121 who had overestimated their earn-

ings, there were 50, or 41.3 per cent of the total, with the same percentage of error. If there is added to this group those having a percentage of error of from 5 to 10 per cent, the results show only 111, or 38.7 per cent, of those underestimating, and 77 or 63.6 per cent of those overestimating within these limits. Among those with a very large percentage of error—20 per cent and above—the opposite is true, that is, those who underestimated show a larger proportion, 106, or 36.9 per cent; while the overestimates numbered only 14, or 11.6 per cent of that group. The differences between estimates and actual earnings in a few cases were so large that the estimate would have to be more than doubled to equal the actual earnings.

From these figures it seems apparent that there was a strong tendency to underestimate earnings. While it is impossible to give a definite reason for this, there are several possible explanations. In the first place, the man may not give his entire earnings to his wife, but may simply give her the amount he thinks she should spend for the family. Then again, there might easily be a feeling among people of this economic level that if their circumstances should appear too comfortable, steps might be taken to lower wages on the ground that they had more than they actually needed. A third explanation may be in the fact that several times the investigators were asked if they came "from the government" and had anything to do with the income tax.

Further evidence of the unreliability of these estitimates is shown from a consideration of the group as a whole without regard to the question of whether the error arises through overstatement or understatement. Even if a difference of less than 10 per cent is conceded to be so small as to be of very little importance, there still remain 220 families, or 52.3 per cent, whose esti-

mates show larger errors. Moreover, 120 families, or 28.5 per cent of the whole group, made estimates with errors of 20 per cent or more.

All these facts seem clearly to indicate that, at least for a group of the kind studied, it is not safe to rely on estimates alone in obtaining facts concerning wages. This tendency—to underestimate, and to do so with a substantial divergence from the facts—is so pronounced that it furnishes strong evidence that estimates of wages and earnings, such as have been frequently accepted in other inquiries as reasonably accurate, are far from reliable. Moreover, attention should again be called to the fact that the investigators who secured these estimates were all persons who had had experience in family case work and who know something of life among families in the low-wage groups. Therefore the inaccuracies in the estimates cannot be charged to lack of intelligence or experience among the investigators, but are apparrently largely inherent in the method itself.

CHAPTER III

HOUSEHOLD AND FAMILY COMPOSITION

When the household and family composition of these 467 laborers is studied, it must be borne in mind that this is not a true random sample of the unskilled wage-earning group in Chicago, because only those families were included in which there was at least one dependent child. Because of the decision to confine the inquiry to families of this type, it was necessary to exclude 715 of the names which appeared on the lists furnished by employers. The employers had, of course, been asked to furnish only the names of men who were married and had a dependent child; but, in many cases, it is clear that they did not have these facts about their employees.

In tabulating the data regarding the size of the families scheduled, it was thought best to distinguish between the family and the household. The term "family" is used to include the father and mother, their children, and all dependent relatives; while the term "household" is used to include this family group and all boarders and roomers. Separate tables have therefore been prepared showing, first, the number of households, and then the number of families of different sizes. Table XVII shows the composition of the households studied. There are naturally no households of less than three members, and all of the households in this three-person group are made up of the father and mother and one dependent child. There are 84 households of five persons each; and those having four and six members are nearly as numerous, including 76 and 74 households, respectively. Only 122 households, or 26.3 per cent, had fewer than five

members; and 259, or 55.6 per cent, had more than five members.

The families, as distinguished from the households, show a somewhat different composition, as they are, generally speaking, a somewhat smaller group. This is shown in Table XVIII. Five persons make up 97 families, or 20.8 per cent of the total; and this again is the largest single group. There are 155 families, or 33.1 per cent, which have fewer than five members; and 215, or 46.1 per cent, which have more than five members.

DEPENDENT CHILDREN

Before discussing the number of dependent children in the families, it is necessary to define the word "dependent" as used in this connection. For the purposes of this study, a dependent child is one who is dependent on the family fund for support. No age limit has been set, and 40 children of sixteen or over were included who were either attending school or were ill, and therefore were contributing nothing to the family fund. On the other hand, there have also been included, as dependent, 35 children of thirteen, fourteen, and fifteen years of age who have worked after school or during the summer holidays at such jobs as selling newspapers, peddling, delivering parcels, picking berries, and caddying at country clubs. These children contributed small amounts to the family fund; but as they were all attending school and were largely supported from the earnings of others, it seemed fairer to consider them as dependent children rather than as working children.

The number of persons in the "standard" or "normal" family, which is supposed to consist of the father and mother and three dependent children, has been discussed for some years in relation to the "living wage" and more recently in connection with family-allowance schemes. Mr. Rowntree in his book *The Human Needs*

TABLE XVII

NUMBER OF PERSONS IN WAGE-EARNERS' HOUSEHOLDS;* NUMBER AND PER CENT DISTRIBUTION

NUMBER OF PERSONS IN HOUSEHOLD	WAGE-EARNERS' HOUSEHOLDS	
	Number	Per Cent Distribution
Total	467	.....
Not reported†	2	.....
Total reported	465	100.0
3	46	9.9
4	76	16.4
5	84	18.1
6	74	15.9
7	65	14.0
8	58	12.5
9	29	6.2
10	15	3.2
11	7	1.5
12	5	1.1
13	3	.6
14 or more	3	.6

*The household includes all members of the family, dependent relatives, and boarders and roomers.

†It was impossible to learn the exact number of boarders and roomers in these two households.

TABLE XVIII

NUMBER OF PERSONS IN WAGE-EARNERS' FAMILIES;* NUMBER AND PER CENT DISTRIBUTION

NUMBER OF PERSONS IN FAMILY	WAGE-EARNERS' FAMILIES	
	Number	Per Cent Distribution
Total	467	100.0
3	59	12.6
4	96	20.5
5	97	20.8
6	68	14.6
7	55	11.8
8	49	10.5
9	26	5.6
10	12	2.6
11	2	.4
12 or more	3	.6

*The family includes the father, mother, all children, and all dependent relatives.

of Labor[1] studied the census figures for 2,161 families in York, England, which he considered "completed families"—that is, where the mother was between forty and forty-five years of age. The purpose of the study was, as he expresses it, "to guide us in deciding what number of dependents should be allowed for in fixing the minimum wage to be paid to men." His conclusions, drawn from a considerable body of statistical material, were that in approximately fifty per cent of all families there are at some time or other three or more dependent children to be supported by the chief wage-earner. Hence, a minimum wage should be based on the needs of families of this size.

In a discussion of the minimum wage and the schemes for family allowances in Australia, Miss Rathbone[2] comments upon the fact that the five-member family had been accepted as standard by all arbitration and wage boards in that country, with the exception of the Board of New South Wales which has the four-member family as standard. In 1920 a Royal Commission on the Basic Wage was appointed in Australia which she thinks "represents the first attempt ever made . . . . by the government of any nation to put a real content into the empty phrase 'a living wage' based on the fiction of the uniform typical family." After a careful investigation, this commission in its report gave out the following figures on the family composition of wage-earners:

27.0 per cent are bachelors or widowers without children
24.7 per cent are married couples without children or with no dependent children under fourteen
16.6 per cent have one dependent child
13.0 per cent have two dependent children
8.8 per cent have three dependent children
9.9 per cent have more than three dependent children

[1] B. Seebohm Rowntree, *The Human Needs of Labor* (London, 1918).
[2] Eleanor F. Rathbone, *The Disinherited Family* (London, 1924).

In the light of these figures, Miss Rathbone maintained that

at present the industries of the Commonwealth pay as if the children of the Commonwealth were 3,000,000 (i.e. three children for each 1,000,000 employees). In point of fact, the children of employees in the Commonwealth number 900,000. . . . . There is little doubt that the present quasi-submergence of employees with families is due to ignoring the true incidence of the actual cost of living. From the produced wealth of the country its children have less than enough in order that the unmarried childless may have more than enough.

Because of this, she urges the adoption of a minimum wage large enough for every worker to support two people, with an additional allowance for dependent children to be paid either by the state or from occupational pools organized by different industries.

In a more recent book,[1] in which a strong plea is made for the family allowance instead of the minimum wage, Professor Douglas, after studying the United States Census figures, the material taken from the report of the Health Insurance Commission of the State of Illinois, and the report of the United States Coal Commission, comes to the conclusion that

taking the country as a whole, the adult male workers on the average do not have four additional persons dependent on them. . . . . There were, indeed, in 1920, 33,600,000 children under fifteen years of age, and 32,200,000 males of twenty years and over. This amounted to only 1.04 children for every adult male. Even if the full burden of support fell upon the 28,200,000 occupied males, there would have been only 1.19 children for every such male worker. . . . . At the most, the total number of dependents to be supported by each adult male worker could not amount to more than 2.35 persons and not 4.0.

The interest in this subject and the attempts to throw light upon it confirm the following statement made by Professor Bowley:

Very little is known accurately about one of the subjects which one might have expected to have found among the earliest of statisti-

[1] Paul H. Douglas, *Wages and the Family* (Chicago, 1925).

cal investigations, viz., the composition of ordinary families with respect to sex, to age, and to the number of earners and dependents, and the relative number of families of various compositions.[1]

In view of this discussion, the facts obtained in this inquiry relating to families of different sizes in the group studied are interesting. The data on this subject are shown in Tables XIX and XIX A. Since there were included in the study only those families having at least

TABLE XIX

NUMBER OF DEPENDENT CHILDREN IN WAGE-EARNERS' FAMILIES; NUMBER AND PER CENT DISTRIBUTION

NUMBER OF DEPENDENT CHILDREN	WAGE-EARNERS' FAMILIES	
	Number	Per Cent Distribution
Total	467	100.0
None*	2	.4
1	77	16.5
2	112	24.0
3	103	22.0
4	79	16.9
5	41	8.8
6	34	7.3
7 or more	19	4.1

* The children in these families are dependent nieces and nephews and therefore were not in this table classified with the other dependent children.

one dependent child, there is no information as to the relative number of families with and without such children. The tables do show, however, that families with two dependent children are the most common, as there were 112 of this type, or 24 per cent of the whole number of families. Next in frequency are the families with three children. There are 103 of these, or 22 per cent of the whole number. There are 173 families, or 37 per cent, which have more than three dependent

[1] A. L. Bowley, "Earners and Dependents in English Towns in 1911," *Economica*, May, 1921.

children—one family having as many as nine. When these are added to the number of those having three such children, there are 276 families, or 59 per cent of the total, having three or more dependent children.

While these families represent, in the matter of dependent children, a specially selected sample, and for that reason are not typical of the working-class population as a whole, there is no reason to think that they are

TABLE XIX A

NUMBER OF DEPENDENT CHILDREN IN WAGE-EARNERS' FAMILIES; CUMULATIVE PERCENTAGES

NUMBER OF DEPENDENT CHILDREN	WAGE-EARNERS' FAMILIES
	Cumulative Percentages
None	.4
1 or more	99.6
2 or more	83.1
3 or more	59.1
4 or more	37.1
5 or more	20.2
6 or more	11.4
7 or more	4.1

not typical of the families having children among the unskilled laborers in Chicago. If this is the case, the fact that a large proportion of these families have three or more dependent children has great significance in relation to the adequacy of the father's earnings and of the family fund to meet the demands made upon them.

OTHER DEPENDENTS

In addition to the children there are, in 37 families, other dependents, relatives, either adults or children, who are wholly or partially supported out of the family fund. The relationship of these dependents to the chief wage-earner is very varied. He may be supporting his own mother, his wife's mother, one or more

nieces or nephews, a married daughter and her child, a brother or brother-in-law, when ill or out of work. In 24 cases there is only one dependent relative being supported; in 5 cases there are two; in 7 cases, three; and in in 1 case, four such dependent relatives. In 10 of the 37 cases the support is only partial as, for instance, in one Negro family where a married daughter and her child spent three months of the year 1924 with her parents. In another family, also Negro, the wife's sister and brother-in-law and their child were given a room for several months while he was unemployed. In a Polish family with two working children and one child in school, a room is given to a married daughter, her husband and child. One Italian family has with them for half of every year the man's mother, and supports her entirely during that period. The other families giving partial support to relatives are similar to these and need not be cited. It is interesting to notice the composition of the families who were supporting other dependents. This is shown in Table xx.

It might be thought that the families with several dependent children would not feel able to assume the added burden of the support of dependent relatives, but Table xx seems to indicate that this is not the case in the group which reported dependent relatives living with the family, as 20 of the 37 families reporting other dependents have three or more dependent children. It is true that 15 of the 20 are supporting only one dependent relative, but 3 are supporting two, and 1—a colored family with six children under eleven years of age—had been providing a room, rent free, for the woman's brother, his wife and child for over a year when he was unemployed. As the family is living in a five-room flat, this addition to their number, which made a household of eleven persons, is especially undesirable. Among the

families with fewer dependent children, 8 out of 17 are supporting more than one other dependent. The wage-earner in the one family which has no dependent children, but four other dependents, is a colored man who, with his wife who also works, supports her sister and three children. The sister makes some return by doing the housework and occasionally some laundry work. With the money she earns she pays the insurance for herself and her children, and in this way assures for them

TABLE XX

FAMILIES WITH DEPENDENT CHILDREN AND OTHER DEPENDENTS

NUMBER OF OTHER DEPENDENTS	NUMBER OF FAMILIES WITH SPECIFIED NUMBER OF DEPENDENT CHILDREN							
	Total	None	1	2	3	4	5	6
Total	37	2*	10	5	9	7	3	1
1	24	1	5	3	8	4	3	.....
2	5	.....	1	1	.....	3	.....	.....
3	7	.....	4	1	1	.....	.....	1
4	1	1	.....	.....	.....	.....	.....	.....

* In these families there are no dependent children belonging to the family, but there are dependent nephews and nieces.

the means for a decent burial and escape from the ignominy of burial by the county in the potter's field.

It was found also that a far larger proportion of Negro families support dependent relatives than is the case with the white families. There are 21 Negro families out of the total of 87 that have such relatives in their homes, as compared with 16 white families out of a total of 380. It is true, further, that in the colored families dependent relatives are found more often proportionately in the families with three or more dependent children than in white families of this size, and there is a large proportion of colored families who are supporting more than one dependent relative.

BOARDERS AND ROOMERS

One hundred families have boarders or roomers as members of the household. For the purposes of this study it has been necessary to define these terms more exactly. "Boarders" are those who, for a certain payment every week, receive both room and board from the family; while "roomers" receive only sleeping space in return for their regular payment. Of these families, 56 are white and 44 Negro. These figures represent 14.7 per cent of the total number of white families, and 50.6 per cent of the total number of colored families. This difference is not surprising as the earnings of the Negroes have been shown to be so much lower than those of the white laborers that additional sources of income would naturally be necessary. Moreover, the fact that Negroes are charged a proportionately higher rent than white people often necessitates the renting of rooms in order to meet the high rent. Table XXI shows the number of

TABLE XXI

FAMILIES WITH SPECIFIED NUMBER OF BOARDERS AND ROOMERS

Number of Boarders and Roomers	Number of Families
Total families	467
Families with no boarders and roomers	367
Families with boarders and roomers	100
1	44
2	21
3	17
4	8
5	2
6 or more	6
Number not reported	2

boarders and roomers living with the families. The 8 families having five or six or more roomers are all Negro families, some of whom are paying as much as $65,

$85, and $90 a month for six- or seven-room flats. Of the 8 families having four roomers or boarders, 5 are white and 3 Negro. The other groupings are more evenly divided between the two groups of families.

Other interesting facts are brought out by a comparison of the number of boarders and roomers and the earnings of the chief wage-earner. This is shown in Table XXII.

TABLE XXII

NUMBER OF BOARDERS AND ROOMERS CLASSIFIED BY EARNINGS OF CHIEF WAGE-EARNER

EARNINGS OF CHIEF WAGE-EARNER	Total Families	Families with No Boarders	FAMILIES WITH SPECIFIED NUMBER OF BOARDERS AND ROOMERS						
			Total with Boarders	1	2	3	4	5 or More	Not Reported
Total	467	367	100	44	21	17	8	8	2
Not reported	44	36	8	1	....	4	3	....	....
Total reported	423	331	92	43	21	13	5	8	2
$800–$899	6	5	1	1	....	....	....	....	....
$900–$999	11	5	6	1	2	....	....	2	1
$1,000–$1,099	40	28	12	5	1	3	2	....	1
$1,100–$1,199	50	37	13	3	3	4	1	2	....
$1,200–$1,299	63	44	19	9	5	2	....	3	....
$1,300–$1,399	63	56	7	5	1	....	1	....	....
$1,400–$1,499	81	65	16	9	3	2	1	1	....
$1,500–$1,599	45	36	9	6	3	....	....	....	....
$1,600–$1,699	24	18	6	3	3	....	....	....	....
$1,700–$1,799	20	19	1	....	....	1	....	....	....
$1,800–$1,899	6	6	....	....	....	....	....	....	....
$1,900–$1,999	7	6	1	1	....	....	....	....	....
$2,000–$2,099	2	1	1	....	....	1	....	....	....
$2,100–$2,199	4	4	....	....	....	....	....	....	....
$2,200 and over	1	1	....	....	....	....	....	....	....

Taking the group as a whole, the table shows that the two-thirds of the families who augment their income by taking boarders and roomers are those in which the earnings of the chief wage-earner are less than $1,500 a

year. Among the families in which the earnings of the chief wage-earner fall below the $1,500 line, 23.5 per cent have boarders and roomers; while among those in which the earnings are $1,500 or more, only 16.5 per cent have roomers and boarders as members of their households. It is also significant that the families having three or more boarders and roomers are in the groups where the earnings are low. Only two families having three boarders or roomers had earnings over $1,500, and none of the families with four or more had earnings higher than this level.

One other comparison, that of the number of wage-earners in the family and the number of boarders and roomers, may be of interest. This is shown in Table XXIII.

TABLE XXIII

NUMBER OF WAGE-EARNERS IN FAMILY CLASSIFIED BY NUMBER OF BOARDERS AND ROOMERS

NUMBER OF BOARDERS AND ROOMERS	FAMILIES WITH SPECIFIED NUMBER OF WAGE-EARNERS					
	Total	1	2	3	4	5 or More
Total families	467	267	143	40	8	9
Families with no boarders	367	210	113	32	6	6
Families with boarders	100	57	30	8	2	3
1	44	27	12	3	1	1
2	21	14	5	.....	1	1
3	17	8	7	2	.....	.....
4	8	4	2	1	.....	1
5 or more	8	3	3	2	.....	.....
Number not reported	2	1	1	.....	.....	.....

There seems to be no relationship between the number of wage-earners in the family and the practice of taking boarders and roomers. Among the 267 families with only one wage-earner, 57, or 21.3 per cent, have boarders and roomers; and among a total of 200 families

having two, three, four, five, or more wage-earners, the same proportion, 21.5 per cent, have boarders and roomers.

No attempt will be made here to set out the discomforts and dangers involved in the confusing situations which result when provision is made for boarders or lodgers in homes that are already overcrowded. In a later chapter[1] the facts about overcrowding are set out in some detail. The "lodger problem" must of course be visualized as one phase of the larger problem of housing and sanitation.

[1] See chapter viii, "Housing and Sanitation," pp. 104 ff. For a discussion of some of the social aspects of the problem of taking lodgers, see Breckinridge, S.P., *New Homes for Old.* (New York, 1921), pp. 23–32.

CHAPTER IV

OTHER SOURCES OF THE FAMILY FUND

THE EMPLOYMENT OF MOTHERS

One of the important questions on which it was hoped that this investigation would throw light, is to what extent the income of families, in which the chief wage-earner is an unskilled laborer, is augmented from other sources. An analysis of all sources from which the family income is derived is, therefore, a subject of interest.

In this connection the employment of the mothers of these families is of great importance. It has of late years become a generally accepted principle among all those interested in child and family welfare, that the mother of a family of young children upon whom the health and well-being of the children largely depend, must devote her time and attention to them and not be employed outside the home. Acting upon this principle, relief agencies throughout the country have formulated plans which aim to withdraw women with young children from industry. In Chicago one of the large relief agencies has stated its policy as follows:

OCCUPATION OF MOTHERS OF YOUNG CHILDREN[1]

The policy of the society precludes mothers of nursing infants engaging in gainful occupation. No plans are to be made which jeopardize the life or health of young infants by shortening the nursing period. Relief, if necessary, should be given to permit the mother following minutely the directions of the Infant Welfare Society, physician and nurse.

The society does not believe that mothers of young children should be engaged in gainful occupation.

[1] Statement by the assistant general superintendent in charge of case work, United Charities of Chicago.

If ample provision is made for the school children and pre-school children by care in a day nursery, or with relatives in the home or near by, and the mother's health warrants it and the hours of labor are not too arduous, it occasionally is possible for a mother to work without injury to herself or the children.

In general, however, sufficient relief should be provided to keep a mother at home with her growing children.

It is never advisable to accept a plan for a family which contemplates night work for the mother, nor for any girl or woman member of the family.

The superintendent of another large relief agency makes the following statement:

The Jewish Social Service Bureau has no definite policy with regard to the employment of mothers, each problem being individually considered.

The practice in the organization, however, is not to suggest outside employment to mothers with more than three children. Employment is not considered for mothers with nursing children, and rarely for those with infants under the age of three.

The health of the mother and her needs are carefully considered, and mothers with two and three children are asked to work only part time,—usually four hours, five days a week.

Most of the mothers of this type are employed at the Industrial Workshop[1] which maintains a playroom for children over three.[2]

While neither organization would claim that in every case such standards could be successfully maintained, there is evidently a real effort being made to keep the mothers of young children in the homes and out of industry. Since this is the case with families dependent for their support on resources other than their own, it is interesting to see what the conditions are in independent, self-supporting families. The first point to be considered is the number of mothers who were employed. Table XXIV shows that in 108, or nearly one-fourth, of the families, the mothers were gainfully employed and

[1] A workshop maintained by the Jewish Social Service Bureau.

[2] Statement by the superintendent of the Jewish Social Service Bureau of Chicago.

could not devote their entire time to their families. This table also indicates that there is a somewhat larger percentage of women working in the families where the man's earnings were very low than in the families where

TABLE XXIV

WORKING MOTHERS CLASSIFIED BY EARNINGS OF CHIEF WAGE-EARNER; NUMBER AND PER CENT DISTRIBUTION

EARNINGS OF CHIEF WAGE-EARNER	NUMBER OF MOTHERS				
	Total		Employed		No Mothers*
	Number	Per Cent Distribution	Number	Per Cent Distribution	Number
Total	467	.....	108	.....	3
Not reported	44	.....	8	.....	.....
Total reported	423	100.0	100	100.0	.....
$800–$899	6	1.4	3	3.0	.....
$900–$999	11	2.6	3	3.0	.....
$1,000–$1,099	40	9.5	12	12.0	1
$1,100–$1,199	50	11.8	13	13.0	2
$1,200–$1,299	63	14.9	19	19.0	.....
$1,300–$1,399	63	14.9	14	14.0	.....
$1,400–$1,499	81	19.2	11	11.0	.....
$1,500–$1,599	45	10.6	13	13.0	.....
$1,600–$1,699	24	5.7	3	3.0	.....
$1,700–$1,799	20	4.7	3	3.0	.....
$1,800–$1,899	6	1.4	3	3.0	.....
$1,900–$1,999	7	1.7	3	3.0	.....
$2,000–$2,099	2	.5	.....	.....	.....
$2,100–$2,199	4	.9	.....	.....	.....
$2,200–$2,399	1	.2	.....	.....	.....

*Mother dead or not living with the family.

his earnings were more adequate. Fifty of the 100 wives employed, for whom we have data on the husband's earnings, had husbands who earned less than $1,300. These men constituted 40.2 per cent of the 423 chief wage-earners for whom there is a report on earnings. In these families 29.4 per cent of the mothers were em-

ployed; while in the income groups above this, only 19.8 per cent were employed.

Another question of importance that should be considered is the number of dependent children in the families of these working mothers. Data on this point are shown in Table xxv.

Twenty-three working mothers had one dependent child, 28 had two, and the remaining 57 had three or more children. The size of these families is significant

TABLE XXV

WORKING MOTHERS WITH DEPENDENT CHILDREN; NUMBER AND PER CENT DISTRIBUTION BY NUMBER OF CHILDREN

NUMBER OF DEPENDENT CHILDREN IN FAMILY	WORKING MOTHERS WITH DEPENDENT CHILDREN	
	Number	Per Cent Distribution
Total	108	100.0
1	23	21.3
2	28	25.9
3	27	25.0
4	13	12.1
5	8	7.4
6	5	4.6
7 or more	4	3.7

in view of the fact that at least one of the relief agencies of recognized standing does not suggest any outside work to women with more than three children, and only part-time work, if any, to women with two or three children. It seems almost unavoidable that the well-being of many young children in this group must be jeopardized by the fact that the mother is forced to contribute to the family support.

An example of this type of case is that of a colored family consisting of a man and wife and three children aged twelve, nine, and seven years. They came to

Chicago from Louisiana in 1921, but remained only one year before returning to the South. They came back in 1923 and now wish to remain, as Mrs. P—— feels that her children can get a far better education here than in the South. Mr. P—— earned $1,032 during 1924, and to supplement this Mrs. P—— did "day work" three or four days a week; but even with her wages, the total family fund was only $1,208, while the requirements of the Standard Budget for this family amounted to $1,856.

Mrs. K——, a Polish woman, is the mother of four children, who are aged respectively eight, seven, five, and four years. Her husband has had steady employment with the same firm since 1920, and earned $1,543 in 1924. To supplement this income Mrs. K—— has worked doing "day work" for the past five years. They live in a dark and cheerless four-room apartment which is meagerly furnished and not well cared for.

Another Polish family in which the mother works consists of the man, his wife, and five children aged eight, six, five, three, and two years. In 1924 Mr. S—— earned $912, while the estimated budget for the family amounted to $1,678. In order to help support the children and to save a little money to buy a house, Mrs. S—— has done night work as a janitress for the past three years. She now works in an office building and earns $15 a week.

EMPLOYMENT IN RELATION TO RACE AND NATIONALITY

This question of employment is next considered from the point of view of race and nationality. The outstanding fact, as shown by Table XXVI, is that a far greater proportion of the mothers in the Negro families worked than in the white families. From a total of 87 Negro families, 41 mothers, or 47.1 per cent, worked, in comparison with 67 white mothers, 17.8 per cent of the 377

white families reported on. Again, there seems to be a relationship between the lower wages paid the colored men and the need for supplementary income.

With regard to the nationality of the white families in relation to the employment of mothers no conclusions can be drawn. When the white families are classi-

TABLE XXVI

NUMBER OF MOTHERS EMPLOYED CLASSIFIED BY RACE AND NATIONALITY

RACE AND NATIONALITY	TOTAL	NUMBER OF MOTHERS		
		Not Employed	Employed	No Mothers* at Home
Total	467	356	108	3
Not reported	3	3	.....	.....
Total reported	464	353	108	3
Negro	87	44	41	2
Polish	129	100	29	.....
Italian	68	62	6	.....
Native white	56	48	8	.....
Other Slavic†	31	22	9	.....
Lithuanian	29	21	7	1
German	11	7	4	.....
Czech	11	9	2	.....
Hungarian	8	7	1	.....
Dutch	7	7	.....	.....
Irish	7	7	.....	.....
Scandinavian	4	3	1	.....
All others	16	16	.....	.....

* In three families the mother was dead or not living with the family.

† Includes Russians and Jugoslavs.

fied according to nationality, the resulting numbers in each group are too small to furnish evidence of any value as to whether it is more customary for women of some nationalities to work than for those of other nationalities.

OCCUPATIONS OF MOTHERS

The types of occupation engaged in by these women which must be considered next are shown in Table XXVII.

The occupations of the working mothers are those involving the least skilled types of work, the most common being day work or house-work, factory work and cleaning office buildings. There is no form of domestic service which is more arduous than the kind of housework done by women who are employed by the day, as they usually do the laundry work, scrub floors, and do the cleaning for the household. The work often done by women of this group in restaurants is similarly heavy

TABLE XXVII

Occupation of Mothers According to Race

Occupation of Mothers	Number of Mothers of Specified Race		
	Total	White	Colored
Total working mothers	108	67	41
Not reported	5	4	1
Total reported	103	63	40
Day work or housework	35	15	20
Factory workers	20	15	5
Office-cleaners or charwomen	17	17	.....
Laundry workers	9	1	8
Restaurant workers	7	4	3
Home workers	5	3	2
All others*	10	8	2

*Includes such occupations as dancing-teacher, nut-sheller, saleswoman, and practical nurse.

and disagreeable, as their work involves carrying heavy trays, washing dishes, and scrubbing floors. The work done in laundries is also, to a large extent, unstandardized; the hours are long, the work heavy, and conditions often very bad due to heat and humidity. Office-cleaning is also heavy work; and, while the hours may not be so long as in some other employments, the work is usually done during the night, and there can be no question as to the undesirability of night work for women both from the point of view of their own health and welfare and that of their families. Factory work is often

lighter than these other occupations, and, for that reason, is less of a tax upon the strength of those doing it. It is interesting to note in this connection that 15 white women work in factories, while there are only 5 colored women so employed. On the other hand, all 17 of the women doing office-cleaning are white. On the whole, however, there is a larger proportion of colored women in the more arduous types of occupations, as 31 out of a total of 41 are engaged in day work, in laundries and in restaurants; while only 20 of the 67 white women are so engaged.

The occupations of these women should be compared with those of a selected group of 843 gainfully employed married women with dependent children who were studied in Chicago[1] during the winters of 1918–19 and 1919–20. Four hundred and sixty-three of the women had been known to the United Charities at some time during the year 1918, and 168 others were known to day nurseries which had cared for their children during 1918; and 212, who were colored women, were known either to the Chicago Urban League, where they had applied for employment, or to two public schools where the enrolment was largely colored. The object of this earlier study was to obtain certain facts which would throw light on the effect of the employment of mothers upon the welfare of their children. One subject to which consideration was given was the type of industry in which the women were employed, and it is interesting to see that 86.6 per cent of them were engaged in either manufacturing or domestic and personal service. These two types of employment include work in factories, in laundries and restaurants, as well as housework, day work, and office-cleaning. As 88 women, or 85.4 per cent of the employed mothers in

[1] Helen Russell Wright, *Children of Wage-Earning Mothers. U.S. Children's Bureau Publication No. 102.*

the present study, were found in these occupations, the similarity between the two groups in this respect is quite striking. There is one difference, however, which is very important, and that is, that while in the group of 843 women of the earlier study the division between those in manufacturing and those in domestic and personal service is almost even—42.7 per cent in the former and 43.9 per cent in the latter form of employment—in the group of women just studied, 68, or 66.0 per cent, were doing some sort of domestic and personal service. Because of the laboriousness of this kind of work, it is, as has already been stated, especially undesirable, as the long hours away from home and the fatigue resulting from this kind of work is almost sure to result in neglect of the home and the children.

NUMBER OF WEEKS EMPLOYED

The next question of importance, the number of weeks in 1924 that these women were employed is dealt with in Table XXVIII.

When questioned as to the number of weeks they were employed during 1924, only 29 women stated that they worked steadily throughout the year, and 67 said that they had been employed twenty-four weeks or more —that is to say, approximately half the year or more. It is quite possible that the same inaccuracy may be found here that was evident in the reports on the amount of unemployment among the men. These reports were obtained from the housewives when the schedules were filled in, and no effort was made to secure further information from the employers. It seems highly probable that these reports for the men were not reliable, because when an attempt was made to ascertain the relationship between the length of unemployment and the amount of earnings of each man for 1924—it proved

unsuccessful.[1] In other words, many of the men for whom long periods of unemployment were reported, were in the higher wage groups. However, as the women were in this case reporting on their own work, it seems safe to assume here a greater degree of accuracy. The type of work done by many of these women, especially day work and home work in which 40 of the 108 were

TABLE XXVIII

MOTHERS EMPLOYED CLASSIFIED BY NUMBER OF WEEKS OF EMPLOYMENT

NUMBER OF WEEKS EMPLOYED	MOTHERS WHO WERE EMPLOYED	
	Number	Per Cent Distribution
Total working mothers	108	.....
Not reported	4	.....
Total reported	104	100.0
Less than 4	7	6.8
4 and less than 8	7	6.8
8 and less than 12	8	7.7
12 and less than 16	5	4.8
16 and less than 20	5	4.8
20 and less than 24	5	4.8
24 and less than 32	12	11.5
32 and less than 40	10	9.6
40 and less than 48	12	11.5
48 and less than 52	4	3.8
52	29	27.9

engaged, is often very irregular in character; and this fact undoubtedly has much to do with the number reporting a good many weeks of idleness.

EARNINGS OF WORKING MOTHERS

The last point to be considered in this section is the earnings of gainfully employed mothers. Table XXIX presents data with regard to their annual earnings. Because of the great variation in the length of employ-

[1] See Table XIV, p. 31.

ment, there is also a great variation in the amounts earned during the year—from small sums under $50 to $1,200 or over, as reported by this group of women. It must be emphasized here that these earnings are only estimates made by the women and that no attempt has been made to verify them as was done in the case of the men's earnings. It is possible that these estimates may

TABLE XXIX

EARNINGS OF WORKING MOTHERS FOR THE YEAR

EARNINGS FOR THE YEAR	MOTHERS EMPLOYED	
	Number	Per Cent Distribution
Total working mothers	108	.....
Not reported	3	.....
Total reported	105	100.0
Under $50	14	13.3
$50–$99	10	9.5
$100–$199	9	8.6
$200–$299	11	10.5
$300–$399	10	9.5
$400–$499	13	12.4
$500–$599	12	11.4
$600–$699	8	7.6
$700–$799	5	4.8
$800–$899	4	3.8
$900–$999	1	1.0
$1,000–$1,099	4	3.8
$1,100–$1,199	1	1.0
$1,200–$1,299	3	2.8

be slightly more accurate than the other estimates were because they were made by the women themselves for their own earnings; while the estimates for the men were not made by themselves, but by their wives who may not have known what their husbands' earnings were. But because of the fact that these are estimates and not "pay-roll data," too much reliance must not be placed upon them. It does seem permissible, however, to draw one conclusion and to make one important comparison between the two previous tables. Table XXVIII

shows that 29 women stated that they had worked the entire year, while Table XXIX shows that 26 women earned between $600 and $1,300. Assuming that these two groups are approximately the same, there seems to be almost as wide a range in the wages paid unskilled women workers as was shown in the case of the men.

EMPLOYED CHILDREN

The next important source of income within the family group itself is the contribution of the children

TABLE XXX

NUMBER OF WORKING CHILDREN CLASSIFIED BY AGE

Ages	Number of Working Children
Total	175*
Not reported	1
Total reported	174
14 and less than 15	2
15 and less than 16	5
16 and less than 17	20
17 and less than 18	37
18 and over	110

* There are 108 families in which there are working children.

who are employed. There are certain facts concerning these children which are of especial interest, and among these the first to be considered is the question of the age groups to which they belong.

Table XXX shows that there were 175 working children in 108 of the families. Of these 175 employed children, only 7 were under sixteen years of age. This is particularly striking in view of the fact that, according to the provisions of the Child Labor Law of Illinois,[1] children are allowed to work, with certain restrictions,

[1] *Illinois Revised Statutes, 1925*, chap. 48, Secs. 44–49.

when they are fourteen years of age. The 2 children of fourteen who were fully employed were a boy who helped a peddler on his wagon and earned $5.00 a week, and a girl who worked in a paper-box factory and earned $14.50 a week. The group of 5 children fifteen years of age who were fully employed included a girl who earned $10.00 a week as a filing clerk; a girl who did "office work" for $10.00 a week; a boy earning $11.00 a week as a messenger boy; another boy who earned $10.00 a week as "mail boy"; and a boy who was a junior clerk at $9.00 a week. There were 57 children between the ages of sixteen and eighteen who were employed, and in this connection it must be remembered that there were also 40 children of sixteen or over attending school and not contributing to the family fund. In 6 of these families the mothers were employed, which seems to indicate that they are so eager to have their children take advantage of the educational advantages of the public school that they are willing to work themselves in order to make this possible.

No attempt was made to set an upper age limit for this group of working children, or to exclude those eighteen years of age and over, as the important facts were their membership in the family group and the amount of their contribution to the family fund rather than their ages. The size of these contributions is shown in Table XXXI. The range here is very large—from less than $100 to $3,000 and over. In 33 families the contribution to the family fund is under $500, and in 72 families, it is less than $1,000. As might be expected, in the majority of cases, as the size of the contribution from working children increases, the number of such children in the family increases also, so that in only three families with one working child is the contribution more than $1,000.

It is interesting to note that there seems to be no generally accepted principle in relation to the amount a working child should contribute to the family fund. In some families all the earnings were given to the mother who directed their expenditure; in some other families a definite amount was paid in for board and room; for board, room, and laundry; or for board, room, laundry,

TABLE XXXI

CONTRIBUTION OF WORKING CHILDREN TO THE FAMILY FUND

CONTRIBUTION TO THE FAMILY FUND	NUMBER OF FAMILIES WITH SPECIFIED NUMBER OF WORKING CHILDREN				
	Total	1	2	3	4
Total	108	62	31	9	6
Not reported	4	1	1	2	.....
Total reported	104	61	30	7	6
No contribution	3	3*	.....	.....	.....
Under $500	33	28	5	.....	.....
$500–$999	39	27	9	3	.....
$1,000–$1,499	11	2	8	1	.....
$1,500–$1,999	9	1	6	.....	2
$2,000–$2,499	7	.....	2	3	2
$2,500–$2,999	1	.....	.....	.....	1
$3,000 and over	1	.....	.....	.....	1

* In 3 families there was 1 child employed, but that child made no contribution to the family fund.

and clothes; while what was left was expended or saved according to the wish of the individual child.

CONTRIBUTIONS OF BOARDERS AND ROOMERS

In the preceding chapter, consideration was given to boarders and roomers as affecting the size of the household, so that here the chief question of interest relates to boarders and roomers as additional sources of income. An earlier table (XXI) has shown that of the 467 families, 100 kept boarders or roomers or both. Table XXXII shows the number of boarders and roomers in these 100 families and their contribution to the family

fund. From this table it appears that there is no relation between the number of boarders or roomers and the amount paid into the family. This is undoubtedly due first to the fact that many of the boarders or lodgers did not remain the entire year with the family; secondly, to the varying rates of pay which are asked for board and room, or room alone. Half the families with incomes from this source received less than $300 during the year,

TABLE XXXII

CONTRIBUTION OF BOARDERS AND ROOMERS TO THE FAMILY FUND

CONTRIBUTIONS OF BOARDERS AND ROOMERS	TOTAL FAMILIES	FAMILIES WITH SPECIFIED NUMBER OF BOARDERS AND ROOMERS						
		1	2	3	4	5	6 or More	Not Reported
Total	100	44	21	17	8	2	6	2
None	8*	1	3	1	1	1	1	.....
Under $50	7	3	3	1	.....	.....	.....	.....
$50–$99	16	10	3	2	1	.....	.....	.....
$100–$149	15	9	.....	1	1	1	2	1
$150–$199	6	1	3	1	1	.....	.....	.....
$200–$299	7	2	2	3	.....	.....	.....	.....
$300–$399	15	7	3	2	1	.....	2	.....
$400–$499	9	7	.....	1	.....	.....	1	.....
$500–$599	4	3	1	.....	.....	.....	.....	.....
$600–$699	4	1	.....	2	1	.....	.....	.....
$700–$799	2	.....	1	1	.....	.....	.....	.....
$800 and over	7	.....	2	2	2	.....	.....	1

* In 8 families the boarders or roomers paid part of the rent of the apartment but made no direct contribution to the family fund.

and only 17 received $500 or more. A further word is perhaps necessary to explain more adequately the 8 cases where no direct contribution was made to the family fund. In these families, 7 Negro and 1 white, it was found that an agreement had been made that the rent would be shared and paid directly to the landlord. In this way the expenses of the families for rent were greatly diminished, although their incomes were not directly increased.

INCOME FROM PROPERTY, BENEFITS, AND GIFTS

The other sources which contributed to make up the family fund were benefits, property, and "other income including gifts." In Table XXXIII will be found the number of families whose incomes were increased from these different sources. In 207 families there were one or more of these supplementary sources of income in addition, of course, in all cases, to the father's earnings. A word of

TABLE XXXIII

FAMILIES WITH SOURCES OF INCOME OTHER THAN EARNINGS AND PAYMENT OF BOARDERS AND ROOMERS

Sources of Income	Number of Families
Total	207
Benefits only	33
Property only	65
"Other, including gifts"*	77
Property and benefits and gifts	2
Property and benefits	3
Property and gifts	13
Benefits and gifts	14

*Includes borrowed money and previous savings used in 1924.

explanation is probably necessary here in regard to the meaning of the terms "benefits," "property," and "other, including gifts." By "benefits" is meant any allowance which the wage-earner, or any member of the family, draws from the employer or any insurance company or benevolent association during illness or incapacity caused by an accident or injury. As these men are not members of unions, there were no union benefits included.

The following cases illustrate the types of benefits received. An eighteen-year-old colored girl, while working her first day in a restaurant, fell and broke her leg.

She was in the hospital for several weeks and her employer paid for her care there and also paid her $7.00 a week for twenty-two weeks. In another family the man injured his finger very seriously while at work. He received $13.50 a week from his employer for nineteen weeks, and a small amount beside from an insurance company. Another man who was ill for eleven weeks received $10.00 a week from his employer during this period. In still another case, of injury to the hand, the man drew $221.00 from the firm and $65.00 from a national association in which he was insured.

The income reported from property in 65 cases is easily explained. Of the 467 families from whom schedules were obtained, 130 either own or are buying houses. They are, in fact, "tenement landlords," and in every case where there is income from this source, the family lives in one of the flats and rents out the other parts of the house.

The term "other sources of income including gifts" is more difficult to define as it includes several items. By far the most important of these, occurring in the great majority of cases, are gifts from friends or relatives. The most usual gift, as might be expected, is that of clothing for the woman or the children. This clothing usually comes from "rich relatives" such as grandmothers or aunts or, in cases where the mother is employed doing housework, from her employer. There are several instances also where food was given by employers or relatives at Christmas or on some other occasion; and in a few instances gifts of money are reported from these same sources. Occasionally, the family reported that they had borrowed money to meet current living expenses or that they had used some of the savings of previous years for the same purposes. There are also several miscellaneous additions to the family fund in-

cluded under this heading, such as insurance on the death of a son who was not a member of the family group at the time of his death.

As some of these additions to family income were in money and some in food, clothing, or furnishings, no effort was made to classify them more definitely, as it is only possible in cases like this to give an indication of the other elements which contributed to the total income of the family in money or kind during the year.

CHAPTER V

ANALYSIS OF INCOME FROM ALL SOURCES

An examination has been made in the preceding chapter of the income from all sources; and it is quite clear that the supplementary income, aside from the man's earnings, is a very important factor in meeting the needs of families such as the ones under consideration. In this chapter an attempt will be made to analyze the sources of income in order to show their relation

TABLE XXXIV

CLASSES OF WAGE-EARNERS IN FAMILY; NUMBER AND PER CENT DISTRIBUTION

Wage-Earners as Specified	Families	
	Number	Per Cent Distribution
Total	467	100.0
Father only	267	57.2
Father and mother	92	19.7
Father and children	92	19.7
Father, mother, and children	16	3.4

to each other and, particularly, to the most important source—the man's earnings.

The first source of income to be considered is that of the earnings of members of the family group as given in Table XXXIV. This table shows that in 267 families, or 57.2 per cent of the whole number, the father alone is employed; in 92 families, or 19.7 per cent, the father and mother are both employed; in the same number of families the father and one or more of the children work; and in 16, or 3.4 per cent, the father, mother, and one or

more of the children are employed. Thus, in 200 families, or 42.8 per cent, there are other wage-earners in the family beside the father.

The next question of interest is the extent to which the family earnings are supplemented from sources other than earnings. This is shown in Table xxxv. In 197 families, or 42.5 per cent of the total number reporting, the whole income is composed of earnings. These earnings may be the father's only, or his and the mother's or children's earnings. In 168 families, or 36.2 per cent,

TABLE XXXV

FAMILIES HAVING SPECIFIED SOURCES OF INCOME; NUMBER AND PER CENT DISTRIBUTION

SOURCES OF INCOME	FAMILIES	
	Number	Per Cent Distribution
Total	467	.....
Not reported	3	.....
Total reported	464	100.0
Earnings only	197	42.5
Earnings and property, benefits or gifts	168	36.2
Earnings and boarders or roomers	60	12.9
Earnings and boarders or roomers and other sources	39	8.4

beside earnings there is income from property, benefits or gifts. As these sources have been explained in a previous section, it is not necessary to make further comment here, as their meaning should be clear. In 60 families (12.9 per cent), beside earnings, the family fund includes the amounts paid into it by boarders and roomers; while in 39 families, in addition to earnings and contributions from boarders and roomers, there is some income from benefits, property, and gifts. From this analysis it is shown that in 267 families, or 57.5 per cent, there is income from other sources than the earnings of members of the family.

Finally, a study must be made of those families in which the man is the only wage-earner in order to ascer-

TABLE XXXVI

SOURCES OF INCOME IN FAMILIES IN WHICH THE FATHER IS THE ONLY WAGE-EARNER

SOURCES OF INCOME	FAMILIES IN WHICH THE FATHER IS THE ONLY WAGE-EARNER	
	Number	Per Cent Distribution
Total	267	.....
Not reported	2	.....
Total reported	265	100.0
Earnings only	112	42.3
Earnings and property, benefits or gifts	97	36.6
Earnings and boarders or roomers	35	13.2
Earnings and boarders or roomers and other sources	21	7.9

TABLE XXXVII

PERCENTAGE WHICH ACTUAL EARNINGS FORM OF TOTAL FAMILY FUND; NUMBER AND PER CENT DISTRIBUTION AND CUMULATIVE PERCENTAGES

PERCENTAGE WHICH ACTUAL EARNINGS FORM OF TOTAL FAMILY FUND	WAGE-EARNERS		
	Number	Per Cent Distribution	Cumulative Percentages
Total	467	100.0	.....
Under 20	3	.6	.6
20 and less than 30	6	1.3	1.9
30 and less than 40	16	3.4	5.3
40 and less than 50	30	6.4	11.7
50 and less than 60	29	6.2	17.9
60 and less than 70	58	12.4	30.3
70 and less than 80	70	15.0	45.3
80 and less than 90	56	12.0	57.3
90 and less than 100	60	12.9	70.2
100	139*	29.8	100.0

* In 27 of these cases the families received gifts in kind, so that there were only 112 families in which the father's earnings were the only source of supply.

tain to what extent his wages are supplemented from other sources. This is shown in Table XXXVI. The out-

standing fact here is that while there are 267 families in which the father is the sole wage-earner, in only 112 of

TABLE XXXVIII

SOURCES OF INCOME AND CLASSES OF WAGE-EARNERS

SOURCES OF INCOME	NUMBER OF FAMILIES WITH WAGE-EARNERS AS SPECIFIED				
	Total Families	Father Sole Wage-Earner	Father and Mother	Father and Children	Father, Mother, and Children
Total	467	267	92	92	16
Not reported	3†	2	.....	1	.....
Total reported	464	265	92	91	16
Earnings only	197	112	39	42	4
Earnings and other sources*	168	97	31	34	6
Earnings and boarders or roomers	60	35	11	12	2
Earnings and boarders or roomers and other sources	39	21	11	3	4

*Includes income from benefits, property, gifts, etc.

† One of these families had boarders and roomers but did not report as to whether they had other sources of income beside earnings.

TABLE XXXIX

SOURCES OF INCOME AND CLASSES OF WAGE-EARNERS; PER CENT DISTRIBUTION

SOURCES OF INCOME	PER CENT DISTRIBUTION OF FAMILIES WITH WAGE-EARNERS AS SPECIFIED				
	Total Families	Father Sole Wage-Earner	Father and Mother	Father and Children	Father, Mother, and Children
Total	100.0	100.0	100.0	100.0	100.0
Earnings only	42.5	42.3	42.3	46.1	25.0
Earnings and other sources*	36.2	36.6	33.7	37.4	37.5
Earnings and boarders or roomers	12.9	13.2	12.0	13.2	12.5
Earnings and boarders or roomers and other sources	8.4	7.9	12.0	3.3	25.0

*Includes income from benefits, property, gifts, etc.

these are his earnings the only source of income. While these 112 families are 42.3 per cent of this group of 265

families (two families did not report as to the sources of income), they are only 24.1 per cent of the whole group of families studied. Thus it is clear that in approximately one-fourth of these families the man alone supports the family from his wages, while in the other three-fourths there is supplementary income from one or more of the sources indicated.

The proportion of the family fund derived from the father's earnings is shown in Table XXXVII. This table indicates that in a large proportion of the families studied—69.7 per cent of the total number—the father's actual earnings constitute 70 per cent or more of the family fund. On the other hand, in 11.7 per cent of the family funds the father's earnings make up less than 50 per cent of the total.

All these facts relating to the sources of income and the classes of wage-earners have been brought together in Tables XXXVIII and XXXIX. These tables summarize the material that has already been presented in separate tables in this chapter. They show, first, the number and per cent distribution of families with one or more wage-earners and they show also who those wage-earners are. In the second place, the other sources of income are set forth and related to the number of wage-earners. The two facts which appear after a careful study of these tables are, first, the great importance of all income supplementary to the father's earnings; and, second, that in families in which there is more than one wage-earner the other sources of income are as commonly found as in the families where the man alone is employed.

CHAPTER VI

THE CHICAGO BUDGET[1] IN RELATION TO THE EARNINGS OF THE CHIEF WAGE-EARNER AND TO THE FAMILY FUND

It is now possible to compare the estimates of necessary expenditures based on the Chicago Standard Budget with the incomes of the 467 families under consideration. Before doing this, however, it is necessary to explain briefly just what that Budget is and what sort of standard of living it attempts to establish. It will be recalled that in the introductory chapter a general history was given of the development of the Budget. In this chapter that earlier and more general statement will be supplemented by a somewhat detailed statement of the provisions in the Budget, based upon certain explanatory paragraphs accompanying the Budget estimates.

In the first place, it should be kept in mind that the standard of living which the Chicago Budget is expected to furnish is described as a "minimum normal standard" and is defined as follows:

> The minimum normal standard must furnish everything necessary for a manner of living that will make possible a high standard of physical, mental, and moral health and efficiency for adults, the full physical and mental growth and development of children, and provision for their moral welfare.

The Budget then defines the normal minimum in concrete terms in relation to the different needs of a family.

In taking up, first, the standard for housing, very moderate demands are made, such as that "the housing

[1] *The Chicago Standard Budget for Dependent Families.* Issued by the Chicago Council of Social Agencies. January, 1925.

space must be above ground, dry, clean, in good repair, well lighted, sunned, and ventilated." There should be enough rooms for sleeping so that "no more than two persons should occupy one bed, and that there should be a separate room for the parents, and one for the children of each sex." Usually two other rooms should be provided, a kitchen and dining- or sitting-room. There should be running water in at least one room, a private toilet for each family, and a bathroom, if possible. The size of the rooms may vary with the number in the family and the ages of the children. Outside the house there should be space for the children to play, or the family should live near a playground so supervised that demoralizing influences are not present. Recognition is given to the fact that undoubtedly all these conditions cannot be met at the present time in Chicago, but emphasis is placed upon the necessity of trying to maintain these standards.

The standard for food is next discussed as follows:

> The food provided must meet recognized dietetic standards in furnishing protein, fuel, mineral salts, and the accessory food substances in the quantities which research in physiological chemistry indicates as necessary to maintenance of health.

Beside this, the food must be "sufficiently attractive through variety and other elements of choice to enable each person to eat the required amount." It is also necessary to recognize the food habits of people from different countries which sometimes cause increased expenditures. Another point to be kept in mind is the habit of families of such limited means buying in very small quantities, which necessarily increases the expenditure, especially in the smaller families.

In setting up a standard for clothing, emphasis is put by the Budget first on the need of sufficient clothing to "protect the body from cold, heat, or wet, and to provide

for a proper standard of personal cleanliness." There should be provision for night clothes so that the same clothing shall not be worn both day and night. Beside these essentials there must be some appreciation of the fact that "clothing is one of the most universal means of self-expression and one which is of special interest and importance during adolescence and youth." For this reason the clothing provided—while it need not be expensive—should never be of such a kind as to cause embarrassment or mortification. Some indication of the standard set can be given by quoting the cost per month of clothing, as estimated for a dependent family:

	Cost Per Month
For a man at ordinary outdoor work	$5.90
For a woman at home	$4.50
For a working boy or girl	$7.15–$9.15
For a child thirteen or over	$5.10

Smaller amounts are allowed for the younger children, the lowest estimate being $1.70 a month for children under two years of age. It seems quite clear that only a minimum standard could be maintained with such expenditures.

Further provision is made for other miscellaneous articles, such as fuel, which "should be sufficient to keep the living rooms at a comfortable temperature . . . . , to furnish light, and to supply what is necessary for cooking." Unless an adequate supply of fuel is available, there is always a great temptation for the children to pick up coal and wood from railroad tracks and lumber yards, a proceeding which involves great moral and physical danger for a family. Another necessary item is carfare, and only enough money is allowed here to permit the working members of a family to get to their places of employment and the housewife to do her marketing.

Household supplies are included in the Budget estimate. The allowance here is for "furniture, furnishings, and small articles of household use" which will be "sufficient for convenience and comfort." "Dishes should be sufficient, at least to furnish each member of the family with plate, cereal or soup dish, cup or glass (uncracked and unchipped), knife, fork and spoon in good condition, and, for general use, a few bowls or vegetable dishes and several tablespoons." Cooking utensils, although few in number, should be in good condition, not chipped or rusty. For bed clothing there should be at least three sheets for each bed and enough blankets to permit of proper ventilation in the bedrooms at night.

For the care of health, it is assumed that public physicians and free medical and dental dispensaries are used, with a very small allowance for medicines, dental supplies, and carfare to dispensaries. The amount allowed for education is just sufficient to provide paper and pencils for the children (books are provided by the schools) and to pay for a newspaper for the family. The need for recreation is recognized, and a small allowance is given to cover occasional visits to the movies, carfare for visits to friends, or toys for the children. It has been customary in the past to give $1.00 a month for each member of the family to cover all three items—health education, and recreation—an allowance which will surely not permit of extravagant expenditure.

The final item to be covered is insurance, which is carried by practically every family, in small amounts, to cover burial expenses, as the fear of the potter's field, where paupers are buried, is a very real thing with families in the lower economic levels. The Budget contemplates continuing payments on insurance as carried by the family, unless it is unreasonably high.

The method of estimating the expense of maintaining

this standard is quite simple as prices are obtained from time to time for clothing, fuel, household expenses, etc., in the neighborhoods where families of this type live; and the Budget is revised as prices change.

With these standards in mind, it is now possible to take up the question of the adequacy of the family fund in each of the families studied to meet the requirements of the Budget. In order to answer this question, the required expenditure for each family was estimated according to the Standard Budget. The figures used in these estimates are those presented by the author of the Chicago Budget to the Committee on the Family of the Chicago Council of Social Agencies, in May, 1924,[1] from the discussion of which this study arose. These figures are slightly higher than those used in the Budget issued in January, 1925, by the Committee and quoted in this report. They are, however, based on the same general principles and were intended to establish standards only a little more generous than those now in use by the relief agencies.

As a preliminary step in the consideration of the Standard Budget in relation to the family fund, it is important to compare the earnings of the chief wage-earner with the amount necessary for each family according to its size and composition. In making these comparisons, the data secured for all 467 families were not used, as it was felt that a more accurate comparison could be made if the 130 families who owned or were buying houses were excluded.

There were two reasons for the exclusion of the home-owning families. In the first place, there is no provision made in a budget for a dependent family for expenditures for the purchase of a house since the so-called "dependent" families are not, generally speaking, in-

[1] *Budget Estimate*, May, 1924. See Appendix A.

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volved in such financial enterprises. In the second place, if such expenditures were included and substituted in the place of the estimate for rent, the two estimates for purchase and for rent would not be comparable, as the expenditures for buying a house are not entirely for current living expenses but are partially an investment representing the savings of the family. Thus, in Table XL only the 337 families who paid rent for the apartments or houses are included. This table shows the

TABLE XL

FAMILIES IN WHICH ACTUAL EARNINGS OF CHIEF WAGE-EARNER, AS REPORTED BY EMPLOYERS, WERE ABOVE OR BELOW AMOUNT REQUIRED BY THE CHICAGO STANDARD BUDGET; NUMBER AND PER CENT DISTRIBUTION

EARNINGS OF CHIEF WAGE-EARNER IN RELATION TO STANDARD BUDGET	FAMILIES	
	Number	Per Cent Distribution
Total	337	.....
Not reported	35*	.....
Total reported	302	100.0
Families in which earnings of chief wage-earner show an excess	93	30.8
Families in which earnings of chief wage-earner show a deficiency	209	69.2

* In these cases it was not possible to obtain a statement of earnings from the employer.

number of these families in which the earnings of the chief wage-earner were larger or smaller than the estimated budget for each family. In only 93 families, or 30.8 per cent, were the earnings of the chief wage-earner larger than the amount of money necessary to provide the standard of living required by the Budget, while in 209 families, or 69.2 per cent, the earnings were less than the Budget estimate required.

Even more important is a study of the percentage of difference between the earnings of the chief wage-earner and the estimated Budget. This difference is shown in

Table XLI. Of the group of 93 families in which the earnings of the chief wage-earner were in excess of the Budget, 13 had earnings which were less than 5 per cent larger, and 16 had earnings which were between 5 and 10 per cent larger, making 29 families, or 9.6 per cent of the 302 reporting families within a range of 10 per cent

TABLE XLI

COMPARISON OF THE EARNINGS OF THE CHIEF WAGE-EARNER WITH THE AMOUNT REQUIRED FOR THE FAMILY BY THE CHICAGO STANDARD BUDGET

PERCENTAGE OF DIFFERENCE	NUMBER OF WAGE-EARNERS WHOSE ACTUAL EARNINGS WERE A SPECIFIED PERCENTAGE ABOVE OR BELOW THE CHICAGO STANDARD BUDGET							
	Total	Above			Below			Not Reported
		Number	Per Cent Distribution	Per Cent of Total	Number	Per Cent Distribution	Per Cent of Total	
Total	337*	93	.....	.....	209	.....	.....	35
Not reported	35	.....	.....	.....	.....	.....	.....	35
Total reported	302	93	100.0	30.8	209	100.0	69.2	.....
Under 5	34	13	13.9	4.3	21	10.0	6.9	.....
5 and less than 10	43	16	17.2	5.3	27	12.9	8.9	.....
10 and less than 20	56	25	26.8	8.3	31	14.8	10.3	.....
20 and less than 30	48	10	10.9	3.3	38	18.2	12.6	.....
30 and less than 40	56	12	12.9	4.0	44	21.0	14.6	.....
40 and less than 50	37	6	6.5	2.0	31	14.9	10.3	.....
50 and less than 75	26	9	9.7	3.0	17	8.2	5.6	.....
75 and over	2	2	2.1	.6	.....	.....	.....	.....

* Home-owners excluded.

above. Another group of 29 families have earnings which were 30 per cent or more larger than the estimated Budget. The excess of earnings in this group ranges above 75 per cent. Among the 209 families in which the earnings of the chief wage-earner show a deficiency in relation to the Budget, the percentage of difference shows a slightly narrower range, but a larger proportion of the cases are to be found in the group showing considerable deviation. Forty-eight families, or

15.8 per cent of the 302 families, have a deficiency of less than 10 per cent; while 161, or 53.4 per cent, show deficits ranging between 10 and 75 per cent. That is to say, not only is there a much larger proportion whose earnings fall below than above the minimum required by the Chicago Standard Budget, but the deficits are in general much more significant in size than the surpluses.

In taking up now the comparison of the Standard Budget and the family fund, emphasis must be placed upon the fact that the family fund is itself only an estimate and that, therefore, its accuracy is open to a good deal of question. As has already been stated, the earnings of the chief wage-earner are accurate figures taken from pay-rolls but the earnings of other members of the family, as well as the income from all other sources, are estimates which it was not possible to verify. In an earlier chapter[1] it was shown that there was a decided tendency to underestimate the earnings of the chief wage-earner, so that it seems safe to assume that, if anything, the family funds are also underestimated. This assumption, of course, does not hold in the cases where the earnings of the men make up the entire family fund, as in those cases there are no estimates included in the total.

The first question of interest to be answered is, in how many families are the family funds larger than the estimated Budget, and in how many are the funds smaller? Table XLII answers this question. The figures here are quite different from those shown in Table XL, where only the earnings of the chief wage-earner were included, as there are 185 families, or 55.1 per cent of the families under consideration, whose family funds are larger than the estimated Budget, and 151 or 44.9 per cent with family funds smaller than the Budget. This,

[1] See chapter ii, pp. 35, 36.

of course, is not surprising as with all the sources of income included it is natural that there should be a larger percentage of these families able to maintain a standard as high as, or higher than, that set by the Standard Budget.

TABLE XLII

FAMILIES WHOSE FAMILY FUNDS WERE ABOVE OR BELOW THE CHICAGO STANDARD BUDGET; NUMBER AND PER CENT DISTRIBUTION

FAMILY FUND IN RELATION TO STANDARD BUDGET	FAMILIES	
	Number	Per Cent Distribution
Total	337	.....
Not reported	1	.....
Total reported	336	100.0
Families whose family funds show an excess	185	55.1
Families whose family funds show a deficiency	151	44.9

The next subject to be considered is the percentage of difference between these funds and the Standard Budget. This is shown in Table XLIII. Taking first the cases where the family fund shows an excess over the Budget, there is some similarity between this table and Table XLI. That is to say, while in Table XLI 9.6 per cent showed a difference of less than 10 per cent, in this table 13.7 per cent show the same difference. As the percentage of excess increases, however, there are, as might be expected, relatively more families whose family funds are larger, with the result that there are 75 families, or 22.4 per cent of the total number of 337 families, whose family funds are 30 per cent or more in excess, as compared with 9.6 per cent of families where the earnings of the chief wage-earner exceed the Budget by the same percentage.

The families in which the family fund shows a de-

ficiency number 151, and the amount of the deficiency goes in some cases almost to 50 per cent. The great majority of them, 80.2 per cent, however, fall in the percentage groups below 30 per cent. These results present a striking contrast to those indicated in Table XLI, where the percentage of difference ran much higher, but the con-

TABLE XLIII

COMPARISON OF FAMILY FUND WITH THE CHICAGO STANDARD BUDGET

PERCENTAGE OF DIFFERENCE	FAMILIES IN WHICH FAMILY FUNDS WERE A SPECIFIED PERCENTAGE ABOVE OR BELOW THE STANDARD BUDGET							
	Total	Above			Below			Not Reported
		Number	Per Cent Distribution	Per Cent of Total	Number	Per Cent Distribution	Per Cent of Total	
Total	337	185	.....	.....	151	.....	.....	1
Not reported	1	.....	.....	.....	.....	.....	.....	1
Total reported	336	185	100.0	55.1	151	100.0	44.9	.....
Under 5	52	22	11.9	6.6	30	19.9	8.9	.....
5 and less than 10	40	24	12.9	7.1	16	10.6	4.8	.....
10 and less than 20	74	32	17.3	9.5	42	27.8	12.5	.....
20 and less than 30	65	32	17.3	9.5	33	21.9	9.8	.....
30 and less than 40	46	25	13.5	7.4	21	13.9	6.2	.....
40 and less than 50	27	18	9.8	5.4	9	5.9	2.7	.....
50 and less than 75	20	20	10.9	6.0	.....	.....	.....	.....
75 and over	12	12	6.4	3.6	.....	.....	.....	.....

trast is not surprising when it is recalled that all the sources of income are included in the later table.

In order to clarify this discussion and to relate it to the actual amounts of money making up these family funds, Table XLIV has been prepared. This table states first the number and per cent distribution of the earnings of the chief wage-earner, and, in comparable form, the number and per cent distribution of family funds of different sizes.

The first point of importance in Table XLIV is the fact that 74 families have family funds of over $2,400 a year, and 11 of these are over $4,000 a year. There are, needless to say, no families where the earnings of the chief wage-earner are more than $2,400 a year. One hun-

TABLE XLIV

EARNINGS OF CHIEF WAGE-EARNERS AND TOTAL FAMILY FUNDS CLASSIFIED BY AMOUNTS

AMOUNT	FAMILIES WITH CHIEF WAGE-EARNERS EARNING SPECIFIED AMOUNT		FAMILIES WITH FAMILY FUND OF SPECIFIED AMOUNT	
	Number	Per Cent Distribution	Number	Per Cent Distribution
Total	467	.....	467	.....
Not reported	44*	.....	1†	.....
Total reported	423	100.0	466	100.0
$800–$999	17	4.0	5	1.1
$1,000–$1,199	90	21.3	45	9.6
$1,200–$1,399	126	29.8	75	16.1
$1,400–$1,599	126	29.8	80	17.2
$1,600–$1,799	44	10.4	76	16.3
$1,800–$1,999	13	3.1	41	8.8
$2,000–$2,199	6	1.4	48	10.3
$2,200–$2,399	1	.2	22	4.7
$2,400–$2,599	.....	.....	21	4.5
$2,600–$2,799	.....	.....	10	2.1
$2,800–$2,999	.....	.....	10	2.1
$3,000–$3,499	.....	.....	15	3.2
$3,500–$3,999	.....	.....	7	1.5
$4,000–$4,499	.....	.....	3	.7
$4,500–$4,999	.....	.....	5	1.1
$5,000 and over	.....	.....	3	.7

* It was not possible to obtain employers' statements of wages for these men; therefore, their wages are given under "not reported." As the family fund is only an estimate, the man's estimate of his wages is included in the family fund.

† In one case no estimate of the man's earnings could be obtained.

dred and eleven families have total incomes between $1,800 and $2,400 as compared with 20 families in which the man's earnings came within these limits. In the lower income groups it is interesting to note that, while in 125 families, or 26.8 per cent, the family funds amounted to less than $1,400 a year, the earnings of the chief wage-

earner in 233 families, approximately one-half of the whole number were less than $1,400. These figures are in large part a restatement of what has already been said in a preceding chapter, but they serve to emphasize the importance of the supplementary sources of income in helping to meet the needs of families such as the ones under consideration.

In all this discussion there are several facts which stand out clearly and should be further emphasized. The first of these is the fact that in more than two-thirds of the 302 families for whom these comparisons could be made, the wages of the chief wage-earner are not sufficient to maintain a standard of living equal to that provided by the Chicago Budget; and in some of these cases the deficit existing between the earnings and the Budget is very great, amounting to more than one-half the man's earnings. That is, in order to maintain a standard equal to the Budget, he would have to increase his earnings by 50 per cent. However, it is equally important to remember that when all sources of income are included, a larger number, more than one-half of all the families, are able to meet the requirements of the Budget. But it is evident that even with all the sources of income included, there are many families (44.9 per cent) still unable to meet or approximate these requirements. These facts naturally raise the question, which will be discussed in the next chapter, as to what sort of standard of living is being maintained by the group as a whole, and whether it would be reasonable to substitute it for the one now provided by the Chicago Budget.

CHAPTER VII

THE STANDARD OF LIVING: FOOD

In the preceding chapter a minimum standard of living, as defined by the Chicago Standard Budget, was explained; and it was shown that when the family fund and not the earnings of the chief wage-earner alone were considered this minimum could be maintained by more than half of the 337 families for whom comparative data could be obtained. This statement partially answers the question whether the Chicago Standard Budget estimate is too generous to be met by an unskilled laborer's family by showing that more than one-half of the families could meet it and that, when all sources of income are considered, in a good many cases there was a surplus of varying size above the demands of the Budget.

There remains, however, as has been said, the question of the actual standard of life of these families under consideration; and in the effort to determine whether the Budget minimum is higher than can reasonably be expected for dependent families, certain facts were secured as to the living conditions of the whole group of families. It is hoped that by a study of these facts conclusions as to the standard of living of these unskilled laborers may be drawn, from which it can be determined whether the living conditions of these families are more favorable than should be demanded for a dependent family.

It is generally agreed that one of the most important elements in the standard of living of a family, and especially of a family belonging in the lower economic levels, is food. The schedule used for the investigation included

an estimate of the family's annual expenditures for food. While estimates were obtained from all of the 467 families included in the study, a certain number have been discarded in which the difference between the estimated total expenditure and the estimated total income seemed too large to expect accurate statements of the details of the expenditure. After these rejections, there remained 216 schedules for families whose estimated total expenditure was not more than 10 per cent above the estimated total income or not more than 15 per cent below the estimated total income, and these schedules were then analyzed with regard to amount of annual expenditure for food.[1]

In order to compare the expenditures of families of different size and age composition, each family has been reduced to an equivalent number of adult males according to the expenditure scale of the Chicago Standard Budget. The expenditure scale of the Budget on the basis of prices in May, 1924, was as follows:

	Food Expenditure for Year	Equivalent Adult Males
Man at moderately hard muscular work	$156.00	1.00
Woman at moderately hard muscular work	124.80	.80
Boy fifteen to eighteen years	174.20	1.12
Girl fifteen to eighteen years	148.20	.95
Child twelve to fourteen years	148.20	.95
Child nine to eleven years	117.00	.75
Child six to eight years	101.40	.65
Child six months to five years	93.60	.60
Child under 6 months	70.20	.45
Elderly person not in need of special diet	$117.00	.75

It should be noted that the Budget makes allowance for the special dietary needs of each member of the family and that directions are given for special allowances in the case of tuberculosis, in the case of children who are underweight or anemic, and nursing mothers. The total required expenditure for the family, calcu-

[1] The expenditures for food and rent have been analyzed with the assistance of Ruth Hibbard Romer.

lated on this basis, however, may be reduced to terms of the requirement for the adult man at moderately hard muscular work.

In Table XLV the annual expenditures for food by these families is shown as estimated by the wives who gave the schedule information to our investigators. The schedules showed that one-half of the 216 families

TABLE XLV

ESTIMATED ANNUAL EXPENDITURE OF 216 FAMILIES FOR FOOD

ESTIMATED ANNUAL EXPENDITURE FOR FOOD	FAMILIES		
	Number	Per Cent Distribution	Cumulative Percentages
Total.....	216	100.0	.....
$200–$299.....	2	.9	.9
$300–$399.....	11	5.1	6.0
$400–$499.....	26	12.0	18.0
$500–$599.....	30	13.9	31.9
$600–$699.....	40	18.5	50.4
$700–$799.....	34	15.7	66.1
$800–$899.....	20	9.2	75.3
$900–$999.....	19	8.8	84.1
$1,000–$1,099....	12	5.6	89.7
$1,100–$1,199.....	5	2.3	92.0
$1,200–$1,299....	5	2.3	94.3
$1,300–$1,399....	7	3.3	97.6
$1,400–$1,499....	4	1.9	99.5
$1,500–$1,599....	.....	.....	99.5
$1,600–$1,699....	.....	.....	99.5
$1,700–$1,799....	1	.5	100.0

spent less than $700 a year, or about $13 a week for food. Three-fourths spent less than $900, or about $17 a week.

In Table XLVI these figures are given greater significance by a comparison between the expenditures for families of different size and age composition. It is apparent from this table that the total expenditure for food increases with the increase in the size of the family. There is, however, a wide range of variation, and a few

families of large size spend comparatively small amounts for food.

The expenditure per adult male among these 216 families is presented in Table XLVII. There is a wide range in expenditure from less than $100 to more than $300 per adult male. About 43 per cent of the families are spending less than $156 per adult male, or, in other

TABLE XLVI

ESTIMATED ANNUAL EXPENDITURE FOR FOOD CLASSIFIED BY EQUIVALENT NUMBER OF ADULT MALES IN THE FAMILY

ANNUAL EXPENDITURE FOR FOOD	NUMBER OF FAMILIES WITH SPECIFIED NUMBER OF EQUIVALENT ADULT MALES							
	Total	2.00–2.99	3.00–3.99	4.00–4.99	5.00–5.99	6.00–6.99	7.00–7.99	8.00–8.99
Total.....	216	34	63	47	38	21	11	2
$200–$299...	2	1	.....	1	.....	.....	.....	.....
$300–$399...	11	5	5	1	.....	.....	.....	.....
$400–$499...	26	7	11	5	2	1	.....	.....
$500–$599...	30	10	8	8	2	1	1	.....
$600–$699...	40	7	14	10	7	1	1	.....
$700–$799...	34	2	14	9	5	1	2	1
$800–$899...	20	1	2	5	10	2	.....	.....
$900–$999...	19	1	6	3	4	4	1	.....
$1,000–$1,099.	12	.....	1	3	4	2	2	.....
$1,100–$1,199.	5	.....	.....	.....	2	2	.....	1
$1,200–$1,299.	5	.....	.....	1	1	2	1	.....
$1,300–$1,399.	7	.....	2	1	.....	2	2	.....
$1,400–$1,499.	4	.....	.....	.....	1	2	1	.....
$1,500–$1,599.	.....	.....	.....	.....	.....	.....	.....	.....
$1,600–$1,699.	.....	.....	.....	.....	.....	.....	.....	.....
$1,700–$1,799.	1	.....	.....	.....	.....	1	.....	.....

words, less than the standard set up by the Chicago Standard Budget. The majority, however, are spending more than is allowed by the Budget.

The relationship between expenditure for food and the size of the total family fund is shown in Table XLVIII. Again it is apparent that there is some relationship between the size of the family fund and the expenditure for food per adult male. That there is no close correla-

tion, however, is revealed by the wide range of expenditure within each income group. This fact is brought out even more clearly by Table XLIX, which shows the average expenditure according to the income group of the family.

Families whose total incomes fell below $1,600, spent on the average less per adult male than is allowed by the Chicago Standard Budget. A few of the families with

TABLE XLVII

ANNUAL EXPENDITURE FOR FOOD PER ADULT MALE IN 216 FAMILIES

ANNUAL EXPENDITURE PER ADULT MALE	FAMILIES		
	Number	Per Cent Distribution	Cumulative Percentages
Total	216	100.0	.....
Less than $100	13	6.0	6.0
$100–$119	23	10.7	16.7
$120–$139	27	12.5	29.2
$140–$159	31	14.3	43.5
$160–$179	31	14.3	57.8
$180–$199	27	12.5	70.3
$200–$219	17	7.9	78.2
$220–$239	14	6.5	84.7
$240–$259	15	6.9	91.6
$260–$279	9	4.2	95.8
$280–$299	3	1.4	97.2
$300 and over	6	2.8	2.8

incomes above $1,600 also spent less than that amount, but the great majority spent considerably more. The degree of variation from the requirement of the Budget is shown in Table L.

Over half (57.4 per cent) of the families estimated that they spent more than the amount for food called for in the Chicago Standard Budget. These figures, for 216 families, correspond very closely to those showing the relation between the total family fund and the Budget allowance for all expenditures for the entire 467

TABLE XLVIII

ANNUAL EXPENDITURE FOR FOOD PER ADULT MALE IN 216 FAMILIES CLASSIFIED BY AMOUNT OF FAMILY FUND

AMOUNT OF FAMILY FUND	NUMBER OF FAMILIES SPENDING A SPECIFIED AMOUNT PER ADULT MALE												
	Total	Less than $100	$100–$119	$120–$139	$140–$159	$160–$179	$180–$199	$200–$219	$220–$239	$240–$259	$260–$279	$280–$299	$300 and Over
Total	216	13	23	27	31	31	27	17	14	15	9	3	6
$1,000–$1,199	18	3	4	3	4	...	1	...	1	1	...	...	1
$1,200–$1,399	37	2	5	10	3	3	2	5	2	3	2	...	...
$1,400–$1,599	36	2	3	5	11	5	5	1	2	...	1	...	1
$1,600–$1,799	37	3	4	1	5	4	4	1	2	7	2	2	2
$1,800–$1,999	17	1	2	4	3	4	...	1	1	...	1	...	...
$2,000–$2,199	27	1	4	3	1	5	4	4	2	1	...	1	1
$2,200–$2,399	10	...	...	...	...	4	2	1	...	1	2	...	...
$2,400–$2,599	11	1	...	...	1	2	3	1	2	...	...	...	1
$2,600–$2,799	6	...	1	...	1	3	...	...	...	...	1	...	...
$2,800–$2,999	1	...	...	...	...	...	1	...	...	...	...	...	...
$3,000 and over	16	...	...	1	2	1	5	3	2	2	...	...	...

TABLE XLIX

AVERAGE ANNUAL EXPENDITURE FOR FOOD PER ADULT MALE IN 216 FAMILIES CLASSIFIED BY AMOUNT OF FAMILY FUND

Amount of Family Fund	Number of Families	Average Annual Expenditure for Food per Adult Male
$1,000–$1,199	18	$139.94
$1,200–$1,399	37	154.62
$1,400–$1,599	36	156.40
$1,600–$1,799	37	177.14
$1,800–$1,999	17	152.02
$2,000–$2,199	27	169.29
$2,200–$2,399	10	198.06
$2,400–$2,599	11	184.29
$2,600–$2,999	7	165.04
$3,000–$3,399	6	197.38
$3,400–$3,799	3	214.17
$3,800 and over	7	187.10

families. It was found that in 55.4 per cent of the families the total family funds exceeded the total requirement of the Standard Budget.

One family of four gave an estimate of $1,375 for food, as compared with a $500 allowance in the Standard Budget for a family of this size. This family reported the borrowing of $600 during the year. This, however, is

TABLE L

COMPARISON OF EXPENDITURES FOR FOOD WITH ALLOWANCE IN THE CHICAGO STANDARD BUDGET

PERCENTAGE OF DIFFERENCE	FAMILIES WHOSE EXPENDITURES FOR FOOD WERE A SPECIFIED PERCENTAGE ABOVE OR BELOW ALLOWANCE IN THE STANDARD BUDGET					
	Total		Above		Below	
	Number	Per Cent Distribution	Number	Per Cent of Total	Number	Per Cent of Total
Total	216	100.0	124	57.4	92	42.6
Under 5	21	9.7	10	4.6	11	5.1
5–9	25	11.5	18	8.3	7	3.2
10–19	57	26.4	33	15.3	24	11.1
20–29	33	15.2	19	8.8	14	6.4
30–39	38	17.6	27	12.5	11	5.1
40–49	19	8.8	15	6.9	4	1.9
50–59	7	3.3	1	.5	6	2.8
60–69	6	2.8	1	.5	5	2.3
70–79	6	2.8	.....	.....	6	2.8
80 and over	4	1.9	.....	.....	4	1.9

an exception. As shown by Table L only 1 per cent of the families had food expenditures more than 50 per cent above the Standard Budget, while 10 per cent of the families were more than 50 per cent below. Nearly one-half fell within a range of 20 per cent above or below the Standard Budget allowance.

Another important question is the relation the expenditure for food bears to the income of the family. In Table LI is shown the percentage of the family fund

spent for food. A large proportion, 85.2 per cent, of these families spent more than 30 per cent of their entire income for food. More than one-sixth spent over 50 per cent for food.

TABLE LI

PERCENTAGE OF FAMILY FUND SPENT FOR FOOD DURING YEAR

PERCENTAGE OF FAMILY FUND SPENT FOR FOOD	FAMILIES	
	Number	Per Cent Distribution
Total	216	100.0
Less than 20	3	1.4
20–29	29	13.4
30–39	81	37.5
40–49	66	30.6
50–59	28	13.0
60–69	7	3.2
70–79	2	.9

TABLE LII

AVERAGE PERCENTAGE OF FAMILY FUND SPENT FOR FOOD IN FAMILIES CLASSIFIED BY INCOME GROUPS

Family Fund	Number of Families	Average Percentage of Family Fund Spent for Food
Total	216	38.8
Less than $1,200	18	42.8
$1,200–$1,399	37	41.8
$1,400–$1,599	36	40.5
$1,600–$1,799	37	40.7
$1,800–$1,999	17	35.1
$2,000–$2,399	37	40.2
$2,400 and over	34	31.3

Further light is thrown by Table LII upon the proportion of the family fund spent for food. In general the percentage spent for food declines slightly with the increasing income of the families. In the group with total incomes of less than $1,200, 42.8 per cent of the

entire fund was spent, on the average, for food; while in the group with incomes of $2,400 or more, only 31.3 per cent was spent for food.

With the hope of learning how much money was spent for food, how that money was spent, and whether the food requirements of the Chicago Budget were reasonable, a small number of families were persuaded to keep accounts. Thus, in addition to the estimates made by all families, daily accounts of expenditure for food and of the amounts of food purchased were kept by 54 families for a period of one month. These families were made up of 316 persons of whom 118 were adults and 198 were children, with an average of 2.2 adults and 3.7 children per family. Their distribution by race and nationality was as follows: 20 colored families and 34 white, the latter including 11 Polish; 8 Italian; 4 Dutch; 3 each, German and Lithuanian; 2 American; and 1 each, Swedish, Hungarian, and Ukrainian. The selection of these families was based mainly on their interest in the subject and their willingness and ability to keep accounts.[1]

While the accounts were being kept, the homes were visited frequently to see that the records were kept accurately and the entries made every day; but the families were not influenced in any way either as to choice of food or amount purchased. Each family was paid ten cents for each day that a record of purchases was kept, to recompense them in a slight degree for their trouble and to act as an incentive toward keeping full and consecutive accounts. Seven families were so much interested in the results of this account-keeping that they continued for a second month. When these results were compared with those of the first month, it was found, with three slight exceptions, that the expenditure and

[1] The method of analyzing these accounts is described in Appendix D.

dietary factors maintained the same relationship to the standard as in the first month. Four families showed some general improvement in the diet during the second month, while three did not fare so well. The fact that the diets did not uniformly improve or deteriorate, and that there was really no noteworthy change in them, probably indicates that the accounts were kept as accurately as was possible and that no pressure was brought to bear upon the family in regard to improvement in food selection. While this may seem a small number to use as a check for accuracy, they appear to be a reasonably satisfactory sample. When the records were complete, a comparison was made in each case between the amount of money actually spent for food during one month and the amount of money necessary to provide an adequate supply of food for each family, as estimated according to the method of the Chicago Budget. Finally, an expert dietitian was employed to study the records, and the adequacy of the diet of each family was determined in terms of five dietary factors: calories, protein, calcium, phosphorus, and iron, by comparing the amount of each of the five factors consumed by each family with the amount considered by recognized authorities to be necessary for health and efficiency.[1] By the use of these comparisons, it was possible to reach certain conclusions as to the adequacy of these 54 diets and the ability of these 54 laborers to provide proper food for their families.

Consideration was given first to the actual expenditure for food by each family for a month, as compared with the cost for a month for that family according to the minimum requirements of the Chicago Standard

[1] See Appendix D for authorities used and method of procedure. This chapter is a brief summary of the report of the dietitian, Ethel Austin Martin, whose complete report will be found in Appendix D.

Budget. The difference between each family's actual expenditure and the amount required for a family of the same size and composition by the Chicago Budget was determined and expressed as a percentage above or below the Standard Budget.

The number of families whose actual expenditures were above or below the amounts required by the Chicago Standard Budget is shown in Table LIII. This table shows that 35 families spent less for food than the

TABLE LIII

NUMBER OF FAMILIES WHOSE ACTUAL EXPENDITURES FOR FOOD WERE A SPECIFIED PERCENTAGE ABOVE OR BELOW THE AMOUNT REQUIRED BY THE CHICAGO STANDARD BUDGET: DATA FOR 54 FAMILIES WHO KEPT ACCOUNTS

Percentage Above or Below Expenditure Required by Chicago Standard Budget	Number of Families
Total	54
Below standard budget:	
41–60 or more	9
21–40	14
0–20	12
Above standard budget:	
0–20	10
21–40	4
41 or more	5

Chicago Budget required for families of their particular size and composition, while 19 spent more than the required amount. The expenditure for food per adult male per day in these families ranges from 15 cents to 41 cents among the families who spent less than the amount required by the Chicago Budget, and from 44 to 74 cents among those who spent more.

The adequacy of the actual diets of these 54 families was also tested according to recognized dietary standards.[1] The results of this analysis are presented in

[1] The scale used is described in Appendix D.

Table LIV. The surprising fact brought out by this table is the almost uniform inadequacy of the diets of these families regardless of the amounts expended. Only 2 families had completely adequate diets. As many as 16 were lacking in all of the five elements analyzed, that is, in total number of calories, in the amounts of protein, calcium, iron, and phosphorus.

TABLE LIV

NUMBER OF FAMILIES WHOSE ACTUAL DIETS WERE ADEQUATE OR INADEQUATE ACCORDING TO RECOGNIZED DIETARY STANDARDS

Actual Diet in Relation to Dietary Standards	Number of Families
Total	54
Adequate in all essentials	2
Inadequate in certain respects	52
In all essentials	16
In two, three, or four elements	31
In calcium only	4
In number of calories only	1

Since all but four of the diets were deficient in calcium, a second table (Table LV) is presented showing the number of adequate and inadequate diets, leaving out of account the element of calcium and considering as adequate diets not more than 10 per cent deficient in other dietary factors. This table indicates that even with calcium disregarded as an essential element, and a 10 per cent lower standard for other factors, 41 of the 54 families had inadequate diets and 11 of these were inadequate in all of the essentials analyzed.

Further analysis in Table LVI shows the adequacy of diets and their actual cost in relation to the required expenditure for the needs of the family according to the Chicago Standard Budget. This table shows that among the 35 families whose expenditure for food was less than

that required for the family by the Chicago Standard Budget, the diet was in all cases inadequate in some respects. In 15 cases the diet was inadequate from every

TABLE LV

NUMBER OF FAMILIES WHOSE ACTUAL DIETS WERE ADEQUATE OR INADEQUATE ACCORDING TO A LOWER DIETARY STANDARD

Actual Diet in Relation to Lower Dietary Standards	Number of Families
Total	54
Adequate in all essentials	13
Inadequate in certain respects	41
In all essentials	11
In two or three essentials	23
In iron only	1
In phosphorus only	3
In calories only	3

TABLE LVI

ADEQUACY OF DIET IN RELATION TO EXPENDITURE

Actual Diet in Relation to Dietary Standards	Number of Families with	
	Expenditure for Food Greater Than That Required by Chicago Standard Budget	Expenditure for Food Less Than That Required by Chicago Standard Budget
Total	19	35
Adequate in all essentials	2	.....
Inadequate in certain respects	17	35
In all essentials	1	15
In two, three, or four essentials	12	19
In calcium only	3	1
In number of calories	1	.....

point of view, and in 19 cases it was inadequate in two or more essentials.

Among the 19 families whose expenditure for food equaled or exceeded the amount required by the Chicago Standard Budget, however, the situation is not much

better. Only 2 families had diets that could be considered completely adequate from a dietary point of view. On the other hand only one of these diets was inadequate in all respects. Two-thirds of the group had diets that were inadequate in two or more dietary essentials.

Examination of the three diets which were considered adequate, with the exception of calcium, shows a comparatively good selection of economical foods. One family used some whole-grain breakfast cereals, a fact remarkable in that this item was lacking from practically every other diet record. No fancy breads or cake were purchased during the month. The one deficiency, calcium, might easily have been supplied by buying milk with money saved in the purchase of cheaper cuts of meat. Another family supplied the usual mineral deficiencies of the diet (except calcium) by the generous use of eggs and green vegetables.

A second test of adequacy, less rigorous than the first, was applied in the same manner. This scale omits the calcium requirement and allows a 10 per cent deficiency in other factors. The results of this test and a comparison with the expenditure for food are presented in Table LVII. Even with this lower standard only 3 of the 35 families who spent less than the amount required for food by the Chicago Standard Budget had adequate diets. Ten were still inadequate from all points of view and 17 were inadequate in two or more respects.

Among the 19 families whose expenditure equaled or exceeded the amount required by the Standard Budget, 10 had adequate diets according to this lower standard. Nine, however, were still inadequate in certain respects. This may indicate that while the Chicago Standard Budget allows a sufficient expenditure for adequate food, the expenditure may require considerable ingenu-

ity on the part of the housewife in selecting the foods which are inexpensive and at the same time nutritious.

Evidence that an ideal selection of food cannot be expected, even when the food allowance is generous, is given by these 19 families. One serious error, due to ignorance of the food values, may render a diet inadequate. For example, the group who spent more than that required by the Chicago Standard Budget were, in

TABLE LVII

ADEQUACY OF DIET (LOWER STANDARD) IN RELATION TO EXPENDITURE

ACTUAL DIET IN RELATION TO SECOND DIETARY STANDARD	NUMBER OF FAMILIES WITH	
	Expenditure for Food Greater Than That Required by Chicago Standard Budget	Expenditure for Food Less Than That Required by Chicago Standard Budget
Total	19	35
Adequate in all essentials	10	3
Inadequate in certain respects	9	32
In all essentials	1	10
In two or three essentials	6	17
In iron only	.....	1
In phosphorus only	.....	3
In calories only	2	1

general, above standard in dietary factors. One family, however, whose expenditure for food was 63 per cent above the standard budget allowance, was below standard in calcium. The unwise selection in this instance consisted in excessive use of some foods and the omission of sufficient quantities of milk from the diet.

How large a part individual selection of foods plays in the return in dietary factors, has been shown by studies of various other groups. In a study[1] of 92 family

[1] H. C. Sherman and L. H. Gillett, "The Adequacy and Economy of Some City Dietaries," *Association for Improving the Condition of the Poor*, 1917.

diets in New York City the following comment was made:

> Many of the studies gave an evidence of deficiencies in food value in one or more important aspects. These deficiencies occurred frequently where the amount of money spent for food was adequate to supply sufficient nourishment had it been spent wisely.

In a study of the diets of children of pre-school age in Gary,[1] it was noted that in many cases faulty selection of individual foods kept the diets on a low plane when there was sufficient money to supply an adequate diet. A recent study[2] of the diets of college students (men and women), eating in groups, where the amount spent for food was not of prime importance, showed that, while the quantity of food was sufficient to satisfy the individuals, the choice was such that the diets were deficient in mineral content.

Since faulty selection of food is a factor which must be recognized regardless of the amount of money available for food, some allowance must be made for this in setting a minimum standard for food expenditure. It is to be expected that in every group, regardless of its economic status, there will be some cases in which superior judgment will make it possible for an adequate diet to be obtained by some members of the group for less money than by others.

There is only a slight possibility then, it appears, of maintaining an adequate diet at a cost below that required by the Chicago Standard Budget. The chances of securing an adequate diet are much greater if the expenditure equals or exceeds the required amount, for in such a case some allowance is made for faulty selection

[1] *U.S. Children's Bureau Publication, No. 122,* Part II, "Diet of the Children," "Children of Pre-School Age in Gary, Indiana."

[2] M. Kramer and E. Grundmeier, "Food Selection and Expenditure in a College Community," *Journal of Home Economics*, January, 1926.

of individual foods, a factor which must always be considered.

By way of summary it may be said that only 2 of the 54 diets were adequate in all respects; these cost more than would have been allowed for these families by the Chicago Standard Budget. Sixteen of the 54 diets were inadequate from all points of view; the expenditure for 15 of these was less than would have been allowed for these families according to the Chicago Standard Budget.

CHAPTER VIII

THE STANDARD OF LIVING: HOUSING AND SANITATION

It was considered inadvisable to make a very detailed investigation of housing conditions because of the danger of trying to work with a schedule so long and complicated that no reliable information could be secured.[1] Certain facts about housing conditions, however, were obtained which are an indication of the living conditions prevailing among these families.

Before taking up the consideration of these facts, an attempt should be made to set forth a standard of housing which provides for the necessary requirement of health and decency, and at the same time is not unreasonably high from the point of view of cost. It will be recalled that in the Chicago Standard Budget the following statement is made:

> There should be sufficient rooms used for sleeping so that no more than two persons are required to occupy one bed and so that there will be a bedroom for the parents and at least one for the children of each sex. . . . . In most families two rooms will be needed for cooking, eating, and social purposes.

This standard would, in almost every case, require five rooms as a minimum.

The treatment of this subject in the Minimum Quantity Budget,[2] prepared by the United States Bureau of

[1] An extensive study of housing conditions in Chicago has also been carried on by the School of Social Service Administration and will be published in the "Social Service Series" (University of Chicago Press) during the coming year.

[2] "Minimum Quantity Budget Necessary to Maintain a Worker's Family of Five in Health and Decency," *Monthly Labor Review*, June, 1920.

Labor Statistics, should also be considered. In this report the subject of housing is considered somewhat more fully than in the Chicago Budget, and the following statement is made:

> Figures collected by the Bureau of Labor Statistics in the 1918–19 study indicated that the majority of workingmen's families of average size and average income lived in houses which furnished approximately one room per person. The families included in the survey were primarily Americans. No schedules were taken from non-English-speaking families who had been in the United States less than five years. Families with boarders or more than three lodgers were excluded.
>
> For twenty cities selected at random, and including all families scheduled regardless of size or income, those living in houses averaged 1.097 rooms per person, and those in flats and apartments, 0.931 rooms per person. The standard health and decency budget must provide at the very least as many rooms per person as the average family was found to occupy. A housing standard of one room per person, exclusive of bath, has therefore been adopted as the minimum requirement consistent with health and decency.

While there are some differences between the group of workingmen studied by the Bureau of Labor Statistics and the group with which this study is concerned, there seems to be no reason why the same housing standard should not apply to all, as differences in nationality or in ability to speak English can have no possible effect on the need for decent and healthful living conditions.

In examining the living conditions of the families studied in this inquiry, it is first of all necessary to know the size of the apartments which were occupied. This is shown in Table LVIII. There are 208 families living in four-room apartments and 95 living in five rooms—that is, a total of 303 families, or 65.1 per cent, live in four- or five-room tenements, and 82.3 per cent live in four-, five-, or six-room tenements. These figures should be compared with those in Table XVII[1] giving the number of

[1] See chapter iii, p. 41.

TABLE LVIII

FAMILIES HAVING APARTMENTS WITH SPECIFIED NUMBER OF ROOMS; NUMBER AND PER CENT DISTRIBUTION

NUMBER OF ROOMS	FAMILIES	
	Number	Per Cent Distribution
Total	467	.....
Not reported	2	.....
Total reported	465	100.0
1	8	1.8
2	13	2.8
3	32	6.9
4	208	44.7
5	95	20.4
6	80	17.2
7	19	4.1
8	9	1.9
9	.....	.....
10 or more	1	0.2

TABLE LIX

NUMBER OF PERSONS IN HOUSEHOLD AND NUMBER OF ROOMS OCCUPIED

NUMBER OF PERSONS IN HOUSEHOLD	NUMBER OF HOUSEHOLDS WITH SPECIFIED NUMBER OF ROOMS												
	Total	Not Reported	Total Reported	1	2	3	4	5	6	7	8	9	10
Total	467	2	465	8	13	32	208	95	80	19	9	...	1
Not reported	2	.....	2	...	...	...	...	...	...	...	1	...	1
Total reported	465	2	463	8	13	32	208	95	80	19	8	...	...
3	46	.....	46	4	2	6	23	8	3	...	...	...	...
4	76	.....	76	2	2	9	44	11	8	...	...	...	...
5	84	.....	84	2	6	10	37	18	9	2	...	...	...
6	74	1	73	...	1	1	40	14	13	3	1	...	...
7	65	.....	65	...	1	4	32	14	12	...	2	...	...
8	58	.....	58	...	1	2	19	15	14	5	2	...	...
9	29	.....	29	...	...	...	8	9	7	4	1	...	...
10	15	1	14	...	...	...	2	3	8	...	1	...	...
11	7	.....	7	...	...	...	1	3	1	2	...	...	...
12	5	.....	5	...	...	...	2	...	1	2	...	...	...
13	3	.....	3	...	...	...	...	...	2	...	1	...	...
14 or more	3	.....	3	...	...	...	...	...	2	1	...	...	...

households of different sizes. This comparison shows that 259 households, or 55.6 per cent of the whole group, had more than five members, and 120 of these had eight or more members.

Another and perhaps more graphic way of comparing the number of rooms in an apartment with the number of persons in a household is given in Table LIX. In this table the figures below the heavy line indicate the households in which there is more than one person to a room. If the standard established by the Bureau of Labor Statistics of one room to one person is to be accepted, it is clear from Table LIX that in the majority of cases these families do not enjoy that standard; in fact, only 153 families, or 33 per cent, maintain or exceed the standard. Further study of the table shows that not only are a large number of families below standard, but many of them are far below it, as for example, the households of three, four, or five persons living in one or two rooms; the households of seven or more persons living in four rooms; the households of ten or more persons living in four, five, or six rooms. Such overcrowding in itself indicates a standard of living which cannot be considered as providing even the minimum of health and decency.

Another indication of the standard of living is the number of persons in the household as compared to the number of beds. This comparison is made in Table LX. In this table the figures below the heavy line indicate families below standard.

When the schedules were taken, information was secured as to the number of double beds and the number of single beds in each household. In making Table LX, in order to obtain a unit of comparison, each double bed was considered as two single beds; and every cradle, cot, davenport, day bed, or any article of furniture on which

an individual slept was considered a single bed. If a standard of one person to a single bed and two to a double bed be applied, this table shows that 235 of the families, or 52.2 per cent, were below, and 215 were at or above the standard. Of those below the standard, many are far below it, as evidenced by the households of four

TABLE LX

NUMBER OF HOUSEHOLDS WITH SPECIFIED NUMBER OF PERSONS AND SPECIFIED NUMBER OF BEDS

NUMBER OF PERSONS IN HOUSEHOLD	NUMBER OF HOUSEHOLDS WITH SPECIFIED NUMBER OF SINGLE BEDS											
	Total	Not Reported	Total Reported	2	3	4	5	6	7	8	9	10 or More
Total	467	15	452	11	46	106	62	118	42	46	12	9
Not reported	2	.....	2	...	...	...	...	1	...	...	...	1
Total reported	465	15	450	11	46	106	62	117	42	46	12	8
3	46	1	45	7	13	16	7	2	...	...	...	.....
4	76	4	72	2	18	38	8	6	...	...	...	.....
5	84	1	83	2	8	35	17	18	2	...	1	.....
6	74	2	72	...	2	10	17	32	6	5	...	.....
7	65	3	62	...	3	3	9	26	16	5	...	.....
8	58	3	55	...	2	1	2	21	12	14	2	1
9	29	.....	29	...	...	3	1	5	5	11	4	.....
10	15	.....	15	...	...	...	1	4	...	7	1	2
11	7	.....	7	...	...	...	...	...	...	4	1	2
12	5	.....	5	...	...	...	...	2	...	...	3	.....
13	3	1	2	...	...	...	...	1	...	...	...	1
14 or over	3	.....	3	...	...	...	...	...	1	...	...	2

or five persons having two single beds; the households of six or seven persons with three or four single beds; the households of eight or nine persons with five or six single beds. Further light is thrown on this question of overcrowding when it is recalled that in 100 families there were boarders and roomers, most of whom were adults and not members of the family group.

SANITATION

In discussing the subject of sanitary conditions it is necessary to quote once more from the report on the Minimum Quantity Budget of the Bureau of Labor Statistics,[1] in order to secure a standard in regard to sanitation to compare with the standards found in the group of families studied. The report contains the following statement:

> In the twenty cities of the 1918–19 study of the Bureau of Labor Statistics, in the families included, over four-fifths of those in flats and apartments and over three-fifths of those in individual houses had inside toilets. Over one-half of the families in both multiple dwellings and individual houses also had baths. It is felt that a housing standard to provide health and decency must include a complete bathroom, with toilet.

The Chicago Budget again sets a standard somewhat lower and says: "There should be toilet facilities in good condition . . . . for the use of the family alone. . . . . A bathroom is highly desirable and should be included wherever possible."

TABLE LXI

LOCATION OF TOILET

LOCATION OF TOILET	FAMILIES	
	Number	Per Cent Distribution
Total	467	.....
Not reported	1	.....
Total reported	466	100.0
House	410	88.0
Yard	56	12.0

In a consideration of toilet facilities, the first question of importance is the location of the toilet. The facts for this group of families are shown in Table LXI. In

[1] See p. 104, note 2.

410 households, or 88 per cent, the toilets were in the building where the family lived. In 56 households, or 12 per cent, however, they were not even in the building, but were in the yard, under the porch, or under the sidewalk. Toilets of this latter type are always extremely undesirable for many reasons and are a menace to the physical and moral welfare of the families. This fact is recognized by the Chicago City Ordinance[1] which provides that:

> In every new tenement house there shall be a separate water closet in a separate compartment within each apartment, except that where there are apartments consisting of only one or two rooms, in which case there shall be at least one water closet for every two apartments.

TABLE LXII

FAMILIES HAVING TOILETS OF SPECIFIED TYPE

TYPE OF TOILET	FAMILIES	
	Number	Per Cent Distribution
Total	467	.....
Not reported	2	.....
Total reported	465	100.0
Private: Used by one family	362	77.8
Used by more than one family	103	22.2

Although a large proportion of the families had toilets within the building in which they lived, a number of these were entered from the public hall and were used by more than one family. The number of toilets used by more than one family is shown in Table LXII. Of the 465 families, 362 families, or 77.8 per cent, have private toilets for the use of the family alone; the other 103 families, or 22.2 per cent, have toilets which they must share with one or more other families.

[1] *The Municipal Code of Chicago, 1922*, chap. xvii, art. IX, sec. 671.

The number of families having bathrooms is shown in Table LXIII. It was upon this point that there was the widest divergence of opinion between the budget standards quoted, as the Chicago Budget states that a bathroom is desirable "wherever possible," while the Bureau of Labor Statistics feels "that a housing standard to provide health and decency must include a complete bathroom with toilet." It is interesting to note that 195 families, or 42.5 per cent, had bathrooms as contrasted with 264, or 57.5 per cent, who did not have them. Evi-

TABLE LXIII

FAMILIES HAVING BATHROOMS; NUMBER AND PER CENT DISTRIBUTION

	FAMILIES	
	Number	Per Cent Distribution
Total	467	.....
Not reported	8	.....
Total reported	459	100.0
Bathroom	195	42.5
No bathroom	264	57.5

dently the possession of bathrooms is not quite as common for this group as in the larger group studied by the Bureau of Labor Statistics.

COST OF HOUSING

Among these 467 families of unskilled wage-earners, 130 families owned or were buying their own homes. The remaining 337 were living in rented houses or apartments. The annual expenditure for rent is shown in Table LXIV. A very large majority (85.6 per cent) of these families spent less than $400 for the entire year's rent, or about $33 a month. Nearly two thirds (64.7 per cent) spent less than $25 a month. While these rents

may seem on the whole to be low, it should be remembered that more than half of the families were living in old apartments of less than five rooms.

TABLE LXIV

ANNUAL EXPENDITURE FOR RENT BY 337 FAMILIES; NUMBER AND PER CENT DISTRIBUTION

ANNUAL EXPENDITURE FOR RENT	FAMILIES LIVING IN RENTED HOUSES OR APARTMENTS	
	Number	Per Cent Distribution
Total	337	.....
Rent not reported	2	.....
Total reported	335	100.0
Less than $100*	4	1.2
$100–$199	96	28.6
$200–$299	117	34.9
$300–$399	70	20.9
$400–$499	25	7.5
$500–$599	6	1.8
$600–$699	7	2.1
$700 and over	10	3.0

* Two of these were basement apartments of two and three rooms each; one was a three-room apartment in a rear house. Two had only yard toilets used by several families. In the fourth case the rent was low because the landlord was the wife's father.

How large a part is played by rent in the budget of the unskilled laborer is shown in Table LXV. Taking the group as a whole, nearly one-half spent between 10 and 20 per cent of the father's earnings for rent; a little over one-fourth spent between 20 and 30 per cent for rent. Although the number of colored families is small, the fact that they are paying relatively high rents in proportion to their earnings is also shown in Table LXV. More than 80 per cent of the colored families spent 20 per cent or more of the earnings of the chief wage-earner for rent, while among the white families only 30 per cent paid that large a proportion.

In Table LXVI the relationship between the expenditure for rent and the entire family fund is shown. Taking the group as a whole, more than two-thirds of the

TABLE LXV

PERCENTAGE OF EARNINGS OF CHIEF WAGE-EARNER SPENT FOR RENT; NUMBER AND PER CENT DISTRIBUTION FOR WHITE AND COLORED FAMILIES

PERCENTAGE OF EARNINGS SPENT FOR RENT	ALL FAMILIES		WHITE FAMILIES		COLORED FAMILIES	
	Number	Per Cent Distribution	Number	Per Cent Distribution	Number	Per Cent Distribution
Total	337	.....	257	.....	80	.....
Not reported	36	.....	31	.....	5	.....
Total reported	301	100.0	226	100.0	75	100.0
Less than 10	25	8.3	25	11.1	.....	.....
10–19	147	48.8	133	58.9	14	18.7
20–29	83	27.6	55	24.4	28	37.3
30–39	25	8.3	8	3.5	17	22.6
40–49	11	3.7	3	1.3	8	10.7
50 and over	10	3.3	2	.8	8	10.7

TABLE LXVI

PERCENTAGE OF FAMILY FUND SPENT FOR RENT; NUMBER AND PER CENT DISTRIBUTION FOR WHITE AND COLORED FAMILIES

PERCENTAGE OF FAMILY FUND SPENT FOR RENT	ALL FAMILIES		WHITE FAMILIES		COLORED FAMILIES	
	Number	Per Cent Distribution	Number	Per Cent Distribution	Number	Per Cent Distribution
Total	337	.....	257	.....	80	.....
Not reported	3	.....	3	.....	.....	.....
Total reported	334	100.0	254	100.0	80	100.0
Less than 10	59	17.7	59	23.2	.....	.....
10–19	171	51.1	146	57.5	25	31.4
20–29	72	21.6	41	16.1	31	38.7
30–39	24	7.2	6	2.4	18	22.4
40–49	8	2.4	2	.8	6	7.5

families spent less than 20 per cent of the entire family fund for rent. Nearly one-tenth, however, paid more than 30 per cent for rent. The families who spend 30 per cent and over for rent are, for the most part, those in which the father earns less than $1,600 per year. Table LXVII shows, for white families, the relationship

TABLE LXVII

PERCENTAGE OF EARNINGS OF CHIEF WAGE-EARNER SPENT FOR RENT CLASSIFIED BY ANNUAL EARNINGS: WHITE FAMILIES ONLY

EARNINGS OF CHIEF WAGE-EARNER	NUMBER OF CHIEF WAGE-EARNERS WITH SPECIFIED PERCENTAGE OF EARNINGS SPENT FOR RENT							
	Total	Less than 10	10–19	20–29	30–39	40–49	50 and Over	Not Reported
Total.....	257	25	133	55	8	3	2	31
$800–$999...	6	.....	3	2	.....	1	.....	.....
$1,000–$1,199.	41	2	21	11	3	2	.....	2
$1,200–$1,399.	75	6	51	16	1	.....	1	.....
$1,400–$1,599.	70	10	35	20	4	.....	1	.....
$1,600–$1,799.	22	2	16	4	.....	.....	.....	.....
$1,800–$1,999.	8	3	4	1	.....	.....	.....	.....
$2,000 and over	6	2	3	1	.....	.....	.....	.....
Not reported...	29	.....	.....	.....	.....	.....	.....	29

between percentage paid for rent and the income group of the father.

The diminution in the percentage expended for rent with the increase in financial resources is shown more clearly, however, by a comparison with the family fund rather than with the father's earnings. The average expenditure for rent for families of different income groups is shown in Table LXVIII. The average percentage paid for rent decreases from 20.3 per cent in the group whose family funds are less than $1,200 to 10.9 per cent among those whose family funds are $2,400 or more.

Finally, Table LXIX presents the relationship between expenditure for rent and size of family. There

TABLE LXVIII

AVERAGE PERCENTAGE EXPENDITURE FOR RENT BY FAMILIES IN SPECIFIED INCOME GROUPS

Amount of Family Fund	Number of Families	Average Percentage of Family Fund Paid for Rent
Total	337	.....
Not reported	3	.....
Total reported	334	15.6
Less than $1,200	46	20.3
$1,200–$1,399	64	18.3
$1,400–$1,599	61	16.4
$1,600–$1,799	57	14.8
$1,800–$1,999	26	13.5
$2,000–$2,399	49	13.3
$2,400 and over	31	10.9

TABLE LXIX

AVERAGE AMOUNT PAID FOR RENT, AVERAGE PERCENTAGE OF EARNINGS OF CHIEF WAGE-EARNER, AND AVERAGE PERCENTAGE OF FAMILY FUND FOR FAMILIES OF SPECIFIED SIZE

Number of Persons in Family	Number of Families	Average Amount Paid for Rent	Average Percentage of Earnings of Chief Wage-Earner	Average Percentage of Family Fund
Total	337	.....	.....	.....
Not reported	36	.....	.....	.....
Total reported	301	$283.35	18.9	15.3
3	47	$274.84	19.0	17.1
4	64	285.52	18.8	15.8
5	66	281.19	19.2	16.2
6	40	276.15	17.5	14.5
7	33	266.08	17.7	12.9
8	24	286.60	18.7	13.7
9 or more	27	327.13	21.7	15.4

seems to be but little connection between the amount and proportion spent for rent and the size of the family.

The largest families do spend the largest amounts for rent, but that this is due to additions to the family fund from additional wage-earners is indicated by the fact that the proportion of the family fund spent for rent in these families is not above average.

HEATING AND LIGHTING

It does not seem possible to set up as definite standards for heating and lighting as for some of the other factors which go to make up a standard of living, but some statement should be made about them here. As regards the heating, the investigation shows that 405 families depended upon stoves, and 62 upon furnaces for their heat. As it is possible to obtain an adequate amount of heat from either stoves or furnace, this comparison throws no light on the actual conditions in the home. But since the presence of central heating is an indication of a higher standard of housing than stove heat, this fact has some significance.

TABLE LXX

FAMILIES HAVING SPECIFIED KIND OF LIGHTING FACILITIES; NUMBER AND PER CENT DISTRIBUTION

TYPES OF LIGHTING	FAMILIES HAVING SPECIFIED TYPE OF LIGHTING	
	Number	Per Cent Distribution
Total	467	100.0
Electricity	330	70.7
Gas	111	23.7
Other means of lighting	26	5.6

The type of lighting common to this group of families is shown in Table LXX. Three hundred and thirty families, or 70.7 per cent, had electric light in their homes;

111, or 23.7 per cent, had gas for illumination; and 26 had neither. In the majority of the flats having electricity for lighting, there was also gas which was used for cooking. It is rather surprising, with electricity so generally accepted as the adequate method of lighting, to find almost one-quarter of the families without it; and even more surprising to find as many as 26 families with no light except that provided by oil lamps.

On the whole then, it seems to be clear that the housing conditions of these Chicago families, which fall below the standard set by the United States Bureau of Labor Statistics, cannot be described as above the level that should be set for the dependent families of this community.

CHAPTER IX

THE STANDARD OF LIVING: OTHER ITEMS

After a study had been made of the estimated expenditures for clothing which were obtained from the families, it was decided that the data obtained were not sufficiently accurate to indicate the actual conditions in regard to the standard of clothing used by these families. It was also impossible to obtain the same sort of information with regard to clothing that was obtained for the food used by the families, because, while one month may be considered an adequate period for the study of food consumption, comparable data about clothing could not be obtained in any period shorter than one year. As an attempt to secure household accounts for such a long period of time seemed out of the question, it was decided that no attempt would be made to draw any conclusions regarding the adequacy of the expenditure for clothing as such conclusions would have to be based on estimates alone and would therefore contribute no reliable information on this subject.

SAVINGS AND DEBTS

It was thought that if information could be obtained about the savings or debts which this group of families had in 1924, it might be some indication of their ability to meet the demands made upon them. Consequently each family was asked if during the year they had been able to save anything or, on the other hand, had run into debt. The replies received were given with a good deal of hesitation, and the investigators felt that in many

cases they were not accurate. The number of families reporting savings or debts are shown in Tables LXXI and LXXII. These tables show that approximately one-third of the families reported savings, and one-third debts, with only five more families reporting debts than

TABLE LXXI

FAMILIES REPORTING SAVINGS; NUMBER AND PER CENT DISTRIBUTION

	FAMILIES REPORTING SAVINGS	
	Number	Per Cent Distribution
Total	467	100.0
No savings	322	68.9
Savings	145	31.1

TABLE LXXII

FAMILIES REPORTING DEBTS; NUMBER AND PER CENT DISTRIBUTION

	FAMILIES REPORTING DEBTS	
	Number	Per Cent Distribution
Total	467	100.0
No debts	317	67.9
Debts	150	32.1

savings. The amounts of savings and debts are shown in Table LXXIII. Probably the most striking thing about this table is the fact that such a large number did not state the amount of savings or debts. This fact, together with the difficulty experienced in getting any information, makes it a question whether any reliance can be placed on the reports as given in this group of tables.

TABLE LXXIII

FAMILIES REPORTING SPECIFIED AMOUNTS OF SAVINGS OR DEBTS; NUMBER AND PER CENT DISTRIBUTION

AMOUNT OF SAVINGS OR DEBTS	FAMILIES WITH SPECIFIED AMOUNT OF SAVINGS		FAMILIES WITH SPECIFIED AMOUNT OF DEBTS	
	Number	Per Cent Distribution	Number	Per Cent Distribution
Total	145	.....	150	.....
Amount not reported	48	.....	58	.....
Total reported	97	100.0	92	100.0
Under $50	21	21.7	32	34.8
$50–$99	26	26.8	26	28.3
$100–$199	21	21.7	18	19.5
$200–$299	15	15.4	9	9.8
$300–$399	4	4.1	4	4.3
$400–$499	3	3.1	1	1.1
$500 and over	7	7.2	2	2.2

INDICATIONS OF COMFORT

Beside obtaining information relating to the actual necessities of life, the schedules included a section which was called "indications of comfort." By this was meant

TABLE LXXIV

FAMILIES HAVING SPECIFIED COMFORTS; NUMBER AND PER CENT DISTRIBUTION

COMFORTS	FAMILIES OWNING		FAMILIES NOT OWNING		FAMILIES NOT REPORTING
	Number	Per Cent of Total Reporting	Number	Per Cent of Total Reporting	
Automobile	14	3.0	450	97.0	3
Piano	94	20.2	372	79.8	1
Victrola	188	40.3	278	59.7	1
Radio	33	7.1	432	92.9	2
Telephone	92	19.7	375	80.3	.....

the possession of certain articles which might add greatly to the convenience of the family or provide them with recreation or amusement. The articles included under

this section were automobiles, pianos, victrolas, radios, and telephones. Table LXXIV shows the number of families who possessed some or all of these comforts and conveniences.

It is rather interesting to note that in this day of inexpensive automobiles, only 14 families reported automobiles, and 1 of these qualified the statement by saying that it was "only a piece of a car." Ninety-four had pianos, and 188 had victrolas, which indicates a desire for recreation. Naturally, because of the expense, there were many more victrolas than pianos. About 20 per cent of the families had telephones, which again seems rather a small number.

USE OF SOCIAL AGENCIES

Although this inquiry has not been concerned with dependent families but rather with the families of self-supporting unskilled laborers, it is interesting to see what use, if any, has been made by these families of the social agencies of the community. There is, in this connection, a distinction to be made between the services provided by the social agencies and other public services such as schools, parks, bathing beaches, and playgrounds. All the people of a community, regardless of their economic level, use the parks and schools; but, generally speaking, it is only the people with very small incomes or no incomes at all who make use of the social agencies. In fact, it is for these people and not for the community at large that the services of social agencies have been planned, and for this reason they are considered as "charities" which must be maintained by taxation or by the gifts of the well-to-do, for the benefit of the "poor"—that is to say, for those who, by their own efforts, are not able to maintain for themselves even a decent minimum standard of living. Since this is the

case, the question would naturally arise as to whether this group of independent families could provide for themselves all the necessities of life without resorting to the use of the services of social agencies.

In order to answer this question, information was sought from two sources: first, from the housewife at the time the schedule was taken, and later from the records of the Social Service Exchange, the Research Bureau of the Jewish Charities of Chicago, and from the Associated Catholic Charities. The Social Service Exchange is a clearing house which any social agency, public or private, may use in order to ascertain what other agencies have been used by a family. In this way duplication is avoided, time and needless effort are saved, and more efficient service is rendered to the family. The Research Bureau performs the same service for the Jewish agencies of the city, and was therefore consulted for possible records of the families of Jewish workers; while the Associated Catholic Charities, although not making use of any central clearing house, was willing to co-operate in giving such information as would be of help in this inquiry.

The reports from all these sources, however, do not constitute a complete social service record and must be considered only as an indication of the number of agencies used by the families, as many agencies do not use the Exchange regularly, and some not at all. This is especially true of the public agencies, such as the County Agent's Office and the County Hospital, and of many private "charities" and churches that work with a large number of families during the year. Another factor which contributes to the difficulty of obtaining complete information is the difficulty in spelling foreign names, and the fact that among some nationalities, notably among the Italians, the children are often called by the mother's

surname and so may be known to different agencies under different names. Since there are so many difficulties to be met in securing the information, these data cannot be considered as accurate as those in the other sections. What errors there are must also be considered to be on the side of an understatement, so that the facts presented are in no way an exaggeration of the degree to which the social agencies were used by the 467 families included in the study.

With these facts in mind it is interesting to see in Table LXXV the extent to which these families have

TABLE LXXV

FAMILIES HAVING FREE SERVICES FROM SOCIAL AGENCIES AT ANY TIME BEFORE DECEMBER, 1924

NUMBER OF SOCIAL AGENCIES GIVING FREE SERVICES	FAMILIES HAVING FREE SERVICES	
	Number	Per Cent Distribution
Total	467	100.0
None	241	51.6
1	95	20.3
2	43	9.2
3	30	6.4
4	23	4.9
5	18	3.9
6	3	0.7
7 or more	14	3.0

used the social agencies. Two hundred and twenty-six, or 48.4 per cent of the total 467 families, are reported as having used at least one social agency at some time before or during the year 1924; and the majority of this group had used more than one agency. Naturally, their contacts with these agencies have also often been prolonged, as would be the case, for instance, if one or more members of a family were receiving treatment at a dis-

pensary or if a family had asked the assistance of the United Charities in solving some difficult problem.

Next in importance to the number of agencies which these families have used is the question of the types of agencies which have rendered service to them. It is not surprising, in this connection, to find that the most numerous group consisted of the so-called "medical agencies" which were called upon by 161 families. These medical agencies include: (1) the hospitals, public and private, such as the County Hospital and the Michael Reese, the Children's Memorial, and the Chicago Lying-In hospitals; (2) the dispensaries and clinics, such as the dispensaries of the Municipal Tuberculosis Sanitarium, the Central Free Dispensary, and the Michael Reese Dispensary; (3) agencies giving medical and nursing service in the homes, such as the service of the county doctors, the Visiting Nurse Association, and the Infant Welfare Society. It is, of course, impossible to mention all the agencies which give free health service, as they are very numerous; but it may be said that in this field of social service, the Chicago agencies are both numerous and efficiently carried on. It is, comparatively speaking, not difficult to secure public interest and support for services of this type, as it is well understood that the health of the community at large demands adequate health service for all members of the community regardless of their ability to pay for such service.

Among the other agencies known to these families was the Juvenile Court, which had had contact with 21 families; the Legal Aid Bureau, with 16 families; and the Juvenile Protective Association, the Salvation Army, the Vocational Guidance Bureau, the School Children's Aid Society, and the settlements—all of which had been used by smaller numbers of families.

Finally, it is interesting to know that, while neither

the Jewish charities nor the Catholic charities were reported to have had any contact with these families, the United Charities had been asked for assistance at some time by 56 of them. The records of the United Charities were read to determine the reasons for the applications for assistance which were as follows: (1) unemployment or irregular employment of the man in 23 cases; (2) illness or accident in 13 cases: (3) earnings which were entirely inadequate to maintain the family in 7 cases; (4) desertion and non-support in 5 cases; (5) miscellaneous causes, such as application for an outing for the children, or employment for a child, in 8 cases. The following case stories will illustrate the situations found in some of the families which led to their request for assistance from the United Charities:

In 1914, Mr. X applied to the United Charities for work. He was a German by birth, who had been in the United States for eighteen years, and in Chicago, three years. He had been employed by the same firm continuously, but because of business depression, had been laid off and consequently his wife and child were in need. Temporary work was secured for him and later he returned to his old firm. In 1921 he came again to the United Charities saying that he had been laid off because of trouble with his foreman. He was still in the employ of the same firm for whom he had worked ever since his arrival in Chicago, and it was not difficult to arrange for his reinstatement. When the family was visited last year in the course of this investigation, they were found to be in comfortable circumstances. There are three children now aged seventeen, twelve, and eight years, respectively.

Mr. X is still in the employ of his old firm and his earnings were $1392 in 1924. The oldest boy is also employed there. In 1922 Mr. X made an initial payment of $500 on a house valued at $2000, and is now paying the remaining $1500 in monthly installments. The family occupies the first floor and rents the second floor for $40 a month. The income from this and from the earnings of the man and his son are sufficient to secure an adequate standard of living for the family at the present time.

The B's, a colored family, applied to the United Charities first

in 1921 when Mr. B was ill and was working irregularly. They had come to Chicago in 1919 from Macon, Georgia, where Mr. B had been employed for sixteen years. He secured work here immediately, but because of his poor health could not work every day. There were three boys at home, aged at that time eleven, nine, and seven years, and two older sons who did not live at home, but helped the family from time to time. Mrs. B was also employed. In 1924 the family applied again as Mr. B was not working more than three or four days a week, and Mrs. B's earnings were not enough to meet the expenses of the family. Two of the boys had shown signs of delinquency and one had been on probation, and one in the Parental School. The family were living in a four-room flat for which they paid $35 a month. It was poorly furnished and there was every indication of real poverty.

Another family, the A's, both of whom are Italians, applied to the United Charities in 1915 as Mr. A was out of work and temporary assistance was needed. Again in 1923 Mrs. A came to the Charities, sent by a settlement. She stated that, while her husband was employed, his earnings and those of the oldest girl were not enough to support their family of eight children. Mr. A had been in the employ of the same firm for nine years and in 1924 earned $1494. His daughter was earning $16.50 a week, but the expenses were very large. The family was living in a six-room apartment for which they were paying $30.00 a month. The United Charities gave no assistance, but asked for clothing for the school children from the School Children's Aid Society.

Mr. L, who is a native-born American, has worked for his present employer since 1922, and in 1924 earned $1561. He, however, drinks continuously, is very abusive, and has not supported his family adequately. In 1919 Mrs. L first applied to the United Charities for help as Mr. L was out of work because of a strike. Again in 1924 she asked for help because he was not supporting her and her efforts to make him do so by court action had failed. There are seven children in the family, the oldest of whom is fourteen, Mrs. L works as much as she is able at housework, but cannot do more than two or three days' work a week. Some years ago they began to buy the five-room cottage in which they live, and are supposed to pay $2.50 a week to a Building and Loan Association, but their payments are now $160 in arrears. The children are thin and pale and are obviously suffering from the lack of adequate care and supervision which they cannot have as long as their mother has to provide part of the income for the family.

As the year 1924 is the period with which this study is particularly concerned and is a year in which the wage-earners in these families were supposed to be fully employed, it is interesting to know that in that year alone 134 families had some contact with social agencies and some families used more than one agency. In this year, taken by itself, the medical agencies were again most frequently used. Thirty-seven families were reported as having received free services from hospitals, 56 were treated at dispensaries and clinics, 12 had the free services of county doctors in their homes, 10 had the services of visiting nurses, and 28 families, of the Infant Welfare Society. The United Charities were asked for help by 11 families; in 4 of these, illness was the reason given for the request; in 4 others, the earnings were complained of as insufficient; in 2, the reason given was "non-support," that is, neglect of the father to provide for the family; and, in one case, unemployment.

Since so many of these families have been obliged in 1924, as well as in the previous years, to supplement their earnings either by actual relief or by other free services, the question may be raised whether there is an actual "poverty line" which separates independent families from dependent ones. Many so-called "self-supporting families" apparently rely on the use of the social agencies to supplement their income; and many others, by some untoward circumstance, are forced, for a time at least, to depend on these agencies entirely for their support.

CHAPTER X

CONCLUSION

After the presentation and analysis of the material in the preceding chapters, it now seems possible to draw certain general conclusions. It will be recalled that the purpose of this investigation was to ascertain facts in regard to the standard of living found in the families of unskilled laborers in Chicago in order to judge whether the estimates in the 1925 revision of the Chicago Standard Budget set too high a standard for dependent families who were being supported by relief agencies. For the purpose of having complete data on this subject it was necessary to obtain certain facts relating to the earnings of the chief wage-earners in these families, such as the amount of the earnings, their adequacy to provide for the needs of the families, the extent to which they were supplemented from other sources, what these sources were, and finally what standard of living these earnings with such other sources of income as were being utilized, could provide for the group of 467 families included in the investigation.

The first point which must be touched upon here is one which is not directly related to the purpose of this study, but which has great significance from the point of view of the methods employed in this inquiry as contrasted to methods used in other social investigations. It is obviously necessary, if conclusions are to be drawn relating to the standard of living of families or groups of families, that reliable information should be secured relating to the income which must provide such standards. Up to the present time it has been the cus-

tom to accept as sufficiently accurate, the estimates of earnings which have been obtained by investigators either from the wage-earner himself or from some member of his family. It seems clear from the results of this study that there is a question whether such estimates should be accepted because of the grave inaccuracies found to exist when compared with actual earnings. The use of such estimates may easily lead to incorrect generalizations about income and the consequent misinterpretation of conditions among the group under consideration. As it is very difficult in problems of social research to collect data which are sufficiently accurate to provide material from which valid conclusions may be drawn, the results of this study in regard to method seem especially significant.

Soon after the study was undertaken it became evident that there was no general agreement as to what the term "unskilled" laborer meant and no clear differentiation between this and the term "semi-skilled" laborer. Both groups were, therefore, included in the study on the ground that they both include laborers doing the simple forms of manual work which can easily be distinguished from the work done by men in the skilled trades. It was also found that the earnings in the unskilled and semi-skilled groups varied greatly and ranged from approximately $800 a year to $2,200, the majority being less than $1,500 a year.

When a comparison was made between the earnings of the chief wage-earners and the Budget estimates, it was found that in more than two-thirds of the families these earnings were insufficient to provide a standard of living equal to that provided by the Chicago Budget. This fact is especially significant when it is recalled that this group of laborers was unusually well situated, as they had been regularly employed throughout the year

1924 and had, for the most part, been in the employ of their firms for several years.

The great importance of the other sources of income, therefore, became evident; and it was not surprising to find that there were other sources of income in 355 families. These sources were found to include the earnings of the wives and children; payments from boarders and lodgers; income from property, benefits, borrowed money; and gifts from friends and relatives. The utilization of these sources is important, not only because of their value in increasing the size of the family fund, but because of the consequences involved in the use of some of them. The fact that it was necessary in 108 families for the mothers to work—and to work at jobs of a particularly arduous type—means undoubtedly a lowering of the standard of living in those families and the consequent sacrifice of the welfare of the dependent children in the families. The presence of boarders or roomers in 100 families, and the overcrowding which results from these additional members of the household, constitutes another factor in lowering the standard of physical and moral well-being in those families, which cannot be disregarded.

When all these sources of income had been included, it was found that just over one-half of the total number of families were able to maintain a standard equal to or above the estimated Budget. Since this was the case, it became necessary to learn what standard the group as a whole was maintaining in order to answer the question as to whether this Budget estimate was a reasonable one. Analysis of the general living conditions of the whole group and of the food consumed by a smaller number of families has shown quite clearly that the families living on a lower standard than that provided by the Budget estimate are living under conditions which fail

utterly to provide a standard of living that will make possible a high standard of physical, mental, and moral health and efficiency for adults, the full physical and mental growth and development of children, and make provision for their moral welfare. Further emphasis is given to this conclusion by the discovery that a relatively large number of families—134 during the year 1924—found it necessary to supplement their incomes by making use of the free services provided by social agencies. As these services were for the most part provided by medical agencies, it can be seen how important this kind of assistance is, both to the families in question and to the community as a whole. Without it the general standard of living would fall to an extremely low level.

APPENDIX A

EXTRACTS FROM THE CHICAGO STANDARD BUDGET FOR DEPENDENT FAMILIES[1]

SCHEDULE FOR ESTIMATING A BUDGET FOR A DEPENDENT FAMILY AT PRICES FOR MAY 1924

HOUSING

If the family rents and is living in satisfactory quarters, count rent as it is paid. If rooms are unsanitary, too small, in bad neighborhood, or in any way unsuitable, estimate a rent that will cover suitable housing.

If the house is owned, ascertain taxes, interest on mortgage, or other payments; make a monthly average of expense and add to it an estimate usually $2.00 to $5.00 per month for upkeep.

FOOD

Food	Where Baking Is Done at Home		Where Bread Is Bought	
	Per Week	Per Month	Per Week	Per Month
Man at moderately hard muscular work	$2.70	$11.95	$3.00	$13.00
Man at hard muscular work	3.00	13.00	3.30	14.30
Woman at moderately hard muscular work	2.20	9.55	2.40	10.40
Woman at hard muscular work	2.35	10.20	2.60	11.30
Boy 15 to 18 years	3.05	13.20	3.35	14.50
Girl 15 to 18 years	2.70	11.70	2.85	12.35
Child 12 to 14 years	2.70	11.70	2.85	12.35
Child 9 to 11 years	2.00	8.70	2.25	9.55
Child 6 to 8 years	1.80	7.80	1.95	8.45
Child 6 months to 5 years	1.70	6.40	1.80	7.85
Child under 6 months	1.35	5.85	1.35	5.85
Elderly or incapacitated person not in need of special diet	2.05	8.90	2.25	9.75

[1] See *The Chicago Standard Budget for Dependent Families*, by Florence Nesbitt, published January, 1925, by the Chicago Council of Social Agencies, *Bulletin No. 5.*

SPECIAL DIET

Where there is a definite recommendation of special food, calculate its cost.

Add the cost of a quart of milk in tuberculosis where the patient is in good condition and for a child 7 per cent or more underweight.

Add a quart of milk and an egg daily and an allowance for fresh vegetables—25 to 50 cents a week—in cases of tuberculosis where the patient is in poor condition.

Add the cost of one pint of milk daily for a slight tubercular infection, such as slightly enlarged glands in children, and for underweight of less than 7 per cent, if the general condition is good.

Add the cost of a pint of milk and an egg daily and an allowance for fresh vegetables—15 to 30 cents a week—for children who have a tubercular infection and are in poor physical condition and for children extremely underweight and anemic.

Add the allowance of the child under six months to that of the woman for the nursing mother and for the expectant mother during the last three months of pregnancy.

VARIATIONS WITH SIZE OF FAMILY

For a person living alone add 25 per cent to the food allowance.

If the weekly allowance amounts to less than $4.25, add 15 per cent; if between $4.25 and $6.00, add 10 per cent; if more than $14.00, deduct 5 per cent.

CLOTHING AND TOILET ARTICLES

	Per Month
For a man at ordinary outdoor work (increase for work involving unusual exposure)	$6.50
For a woman at home	$5.00
Working girl or boy* (increase according to standard of dress required by employment)	$8.15–$10.20
For office work where good standard of appearance is required	$10.00–$12.00
The requirements for girl or boy in high school are much the same as if the child were at work.	
Children 13 years up to eighth grade	$5.75
Children 10 to 12 years	$4.70
Children 5 to 9 years	$3.65
Children 2 to 4 years	$2.80
Children under 2 years	$1.85

* The larger figure allows $25.00 a year for "best" clothing.

In families where there is clothing from older children or parents to be handed down to the younger ones, these figures may be reduced by 10 to 25 per cent for the members of the family receiving such donations.

FUEL FOR HEAT, LIGHT, AND COOKING

	Per Month
Four winter months:	
Where one stove is used	$12.25–$13.25
Where two stoves are used	$17.25–$18.75
Two spring and autumn months	$8.25– $9.25
Four summer months	$2.50– $4.00
Average for year:	
One stove	$7.75– $8.75
Two stoves	$9.35–$10.35

HOUSEHOLD FURNISHINGS AND SUPPLIES

	Per Month
Family of 2 members	$4.00
Family of 3 and 4 members	$4.75
Family of 5 and 6 members	$5.50
Family of 7 and 8 members	$6.25
Family of 9 and 10 members	$7.00

CARFARE

As necessary for work for each member of family. Include necessary trips of housewife to market.

SPENDING MONEY

For working children who turn their wages into the family income, spending money is usually 25 cents to $1.00 per week. If the custom of the family is reasonable, it should be allowed in making out the estimated budget for the family. This allowance will take care of expenditures for recreation and education for those members of the family for whom it is estimated. Or three weeks' wages of the working child may be counted as family income, allowing the remainder to cover his clothing, carfare, and spending money which are omitted from the family budget. This plan should not be used until the child's weekly wage exceeds the minimum estimate for his clothing, carfare, and spending money.

CARE OF HEALTH

Where public physicians and nurses are used, 25 cents a month and up for each person.

EDUCATION

	Per Month
Family education expenses (newspaper, magazines, etc.)	$1.00 up
School supplies (per pupil)	$0.15

INSURANCE

Insurance premiums, lodge dues, etc., as paid (if reasonable).

RECREATION

For members of the family not provided with money for recreation under "Spending Money," 25 cents per month up.

INCIDENTALS

Education, Care of Health, and Recreation may be lumped under incidentals. An average of $1.00 for each member of the family will cover these items in most cases.

APPENDIX B

SCHEDULE AND INSTRUCTIONS TO INVESTIGATORS

A copy of the schedule used in collecting the Budget estimates is presented here (pp. 138–39), together with a copy of the typewritten instructions which were furnished to each investigator. All the investigators had had some experience in family-visiting, but group conferences were frequently held to make certain that the members of the group had a common understanding of the purpose of the inquiry and the details of the schedule. All schedules were corrected immediately after they were handed in, in order that possibilities of error might be reduced to a minimum.

In the case of the families who kept accounts, a printed schedule was not used. Each family was given a blank book and asked to write down each article purchased, together, of course, with the cost and quantity. These families were visited two or three times the first week, later once a week. The sheets were collected each week and filed in the office.

In the following pages are reprinted (1) the General Instructions issued to each investigator (pp. 136–37); (2) a copy of the schedule, which, however, has been considerably reduced in size (pp. 138–39); and (3) the detailed instructions for investigators covering the various items on the schedule (pp. 140–43).

(1) GENERAL INSTRUCTIONS FOR INVESTIGATORS

This inquiry arose out of a discussion in the Council of Social Agencies over the question whether the new budget submitted by the Family Committee did not set a higher standard than could be maintained by the families of the unskilled wage-earners. It is a co-operative investigation carried on by the Council of Social Agencies and the Local Community Research Committee of the University of Chicago. According to the plan of the study, it is hoped to secure approximately five hundred schedules from families of un-

skilled workers, and it is desired that families who do not have at least one child under working age should not be included.

When visiting the family, say that we wish to get certain facts about families who have one or more children under fourteen years of age. If the family visited meets this requirement, then explain further that it is the purpose of the Council to find out whether or not the families have enough wages to buy the necessaries of life for the family—that is, the Council would like to know how much families like this one earn and how much they spend for food, for clothing, for rent, for coal, for buying their house, and so on.

You may be met by the question, "How do you happen to come here?" or "Are you getting other families in this building?" or "How did you get my name?" In reply say that lists of names were given by the Council to different investigators, but that if there are other families like this in the building you would be glad to visit them. In no case let it be known that the man's employer furnished the list of names, and in no case tell the wife that you already know where her husband works. Ask her this question, as well as his occupation, earnings, and so on.

In cases where the wife does not speak English, ask her what language she does speak and if she has a friend in the building who can speak both English and her own language—Czech, Russian, Polish, or whatever it is. A child in the family twelve to fourteen years old is often mature enough to interpret satisfactorily. If it is not possible to get a schedule, an effort will be made to make arrangements later for interpreters; but the investigator should satisfy herself on the primary visit, if possible, on the question of whether the family meets the schedule requirement so that the second visit will not be made unless there is assurance that the schedule can be got. In no circumstance use as interpreters children from other families, since this involves violation of the family privacy and is also very bad for the children.

Every investigator should remember that the purpose is to secure good schedules and that schedules badly taken will probably be too inaccurate to use. The time spent on them is therefore wasted. It is better to leave without a schedule than to waste time when it is clear that a satisfactory schedule cannot be obtained.

Investigators are also cautioned to remember that a schedule of this kind involves a considerable sacrifice of time on the part of the woman who is giving the information. Investigators should therefore be extremely patient, very friendly, and careful to express the thanks of the Council to those who give information.

(2) SCHEDULE

INCOME AND COST OF LIVING STUDY 1924-25 Investigator_____ Date_____ Informant_____ Sch. No._____

I. Name II. Address

III. 1. Family	2. Name	3. Age	4. Sex	5. Time in Fam.	6. Emp.	Cont. to Income 7. Tot. E.	8. Mo. sum	Dep. on Family 9. Tot.	10. Part (sp.)	Weeks Idle 11. No Wk.	12. Dis.	13. Tot.	14. Nat'l
Fa.													WBNF (sp.)
Mo.													WBNF (sp.)
Chil. 1													
2													IV. Spk. Eng.
3													Fa. Y N
4													Mo. Y N
5													
6													
Other (sp.)													

V. Employment and Earnings 1924

1. Name	2. Job No.	3. Firm	4. Address	5. Job	6. Dept.	7. From	8. To	9. Wks.	10. Av. Ea.	11. Tot. Ea.	12. Emp. Statmt.

VI. Total Family Fund 1924		VII. Expenditures	1. Fam.	2. St. Budget		Fam.	St. Budget
Fa.		Rent			Health		
Mo.		Food			Education		
Chil. at home		Clothing			Carfare		
Chil. away		Fa.			Recreation		
Roomers: No. Rate Wks. Tot.		Mo.			Insurance		
Boarders: No. Rate Wks. Tot.		Chil.			Contrib. (Ch. Char. Org.)		
Benefits		Dep.			Incidentals		
Inc. from Prop.		Fuel and Light			TOTAL		
Other (incl. gifts)		Household Sup.			Extraordinary Expend.		
TOTAL		Taxes and Repairs					
Free Services (sp.)		Paid on Prin.			Surplus or Deficit		
		Paid on Int.					
		Spec. Assess.			Savings		
		Repairs and Impr.					
		Water Rent			Debts		
		Insur. Am't or Prem.					

(2) SCHEDULE—*Continued*

VIII. Housing

1. Bldg. F M R....2. Apt. B. Oth....3. Rms....4. Rent....5. Pers.
6. Beds: Single....Double....7. Toilet Y H Apt. Private
8. Bath Y N....9. Heat: Stoves..Furnace....10. Gas....Elect.

IX. Indications of comfort

1. Automobile Y N....2. Piano Y N....3. Victrola Y N
4. Radio Y N....5. Telephone Y N....6. Other (sp.)

X. Indications of poverty (e.g., malnutrition or physical defects, dilapidated or scanty furnishings, insufficient clothing, insufficient heat)

XI. Reg. Record

XII. 1. Is family interested in this study?

2. Does Mo. keep accts.?
3. Do you consider her estimates accurate?

4. Suggested for later study

Notes:

Food per week

Milk	Oleo, oil
Eggs	Fruit
Cereal products	Sugar
Meat	Butter
Vegetables	Coffee

Clothing per year

MAN	WOMAN	CHILDREN
Overcoat	Coat	Coat
Hat	Hat	Hat
Suits	Sweater	Sweater
Sweater	Dress	Dress or suit
Shoes	Housedress	Shoes
Overalls	Shoes	Stockings
Work gloves	Stockings	Underwear
Shirts	Underwear	Night clothing
Socks	Nightdress	
Underwear		
Night clothing		

(3) DETAILED INSTRUCTIONS TO ACCOMPANY SCHEDULE FOR STUDY OF INCOME AND COST OF LIVING

Informant.—Enter position in family of person from whom you receive your information, as "Mo.," "Fa.," or "Chil. 1."

I. Enter surname first and then man's first name.

II. After "address" enter information which specifically designates the house—street and number, front, middle, or rear.

III. 1. Under "Other" specify who the other members of the household are—as boarders, lodgers, mother-in-law. Designate relationship to head of household.

2. Enter first names only of members of the family, full names of relatives. Names of lodgers not required.

3. Enter age in years at last birthday previous to January 1, 1925, e.g., "15." When there is an infant in the family under one year, enter present age in months, and make note on back of schedule of the date of birth of the child. Do not take a schedule unless there was at least one child in family for *all* of 1924.

4. Enter male or female as "M" or "F."

5. This means the amount of time during 1924 that each individual was living in the household. Enter by weeks.

6. Make a check here for every member of the group employed during the year 1924.

7 and 8. The object of these questions is to learn how much of the total family earnings is available for the support of the family. Put a check in column 7 if person turns over entire earnings. Otherwise enter the amount contributed per month in column 8. If this has changed during the year, enter present amount and note changes in notes on back.

9 and 10. The object is to find out what persons were wholly or partially dependent on family income. Enter check in column 9 if person is wholly dependent. Otherwise specify what was provided from family income—board, washing, clothing, etc.

11. Enter number of weeks idle because of no work. Do not attempt to get information concerning unemployment of roomers or boarders.

12. Number of weeks idle because of disability.

13. Total weeks unemployed.

14. Check whether white, black, native, or foreign born; and if foreign born, enter nationality. Determine nationality by mother-tongue. Where Jewish is entered, specify Russian, German, etc.

IV. Check "Y" or "N" to indicate ability to speak English, i.e., ability to carry on conversation necessary to give information desired.

V. One line to be used for each job.

1. Enter first name of wage-earner opposite first job only. Keep wage-earners in order of their position in III.
2. Enter number by which man is designated at work.
3. Enter names of firm in full. Give name of firm correctly in every case.
4. Enter address of firm in full.
5. Enter occupation in definite terms.
6. Enter title or number of department.
7. Enter date of beginning work at this job.
8. Enter date of stopping work at this job.
9. Enter number of weeks in 1924 employed in this occupation. This is to be computed in the office, not entered in the field.
10. Enter average weekly earnings during employment in this occupation as estimated by the woman.
11. Enter total earnings during period of employment. Enter total earnings, including money paid out of earnings at the plant for sick benefit, shares, etc. Make note on the back as to how much was so paid during the year. This is to be computed in the office.
12. This is not to be asked the family. The employer's statement will be obtained later.

VI. Enter total contributions to family fund of father, mother, and children for the year. This is to be obtained from questions III and V. To get the information about boarders and roomers it is necessary to find out specifically the total number during the year, the length of time each stayed, and the rate each paid. Enter under "No." the total number. Enter rate if all have paid the same. Otherwise leave it blank and note all rates on back of schedule. Enter total weeks of all boarders added together. Rate times weeks = total.

After "Benefits," "Income from Property," and "Other (in-

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cluding gifts)," enter total amount received during the year. Include gifts of money from relatives, friends, charitable organizations, churches or welfare departments. After "Free Services" enter specifically agency giving service and type of service rendered, as: M.T.S., clinic and sanitorium; C.C.A., supplies. In the case of home ownership make two totals here: the first one excluding payments on home. Savings from previous years and borrowed money are not counted in family fund if used for the house. In such cases enter the amount of savings used or money borrowed on one of the lines below "Free Service." Savings for previous years and borrowed money are entered in family fund after "Other (inc. gifts)" in all cases where they were used for current expenses in 1924.

VII. 1. Enter woman's estimate of total amount spent during the year on various items. It will probably be necessary to help her make these estimates by asking her such questions as how much she spends a week for food, how many suits of clothes the man has, whether the children buy their books, whether they go to parochial school, and what they pay each month to lodges, unions, etc. It will be possible to find out what amount is paid weekly for the insurance carried on every member of the family.

After "Household Supplies" enter expenditures for cleaning materials, dishes and utensils, bedding, etc., such as would be bought in any average year. If there is unusual expenditure on any of these items, such as a complete supply of sheets, a victrola, a set of furniture, enter this this under "Extraordinary Expenditure."

After "Health" enter ordinary expenses for health, such as medicine, occasional calls from the doctor. If there is a large bill for confinement, operation, hospital care, or continuous doctor's visits, enter this under "Extraordinary Expenditure."

After "Incidentals" enter expenditures for newspapers, stationery, presents, haircuts, tobacco, liquor, etc.

"Extraordinary Expenditures" does not mean expenditure which is startling or incredible. It means expenditure on objects which are not purchased every year (see "Household Supplies") or for services not usually required every year. In deciding what will come under this heading, con-

sideration must be given to the size of the family, the size of the income, and habits of people in this wage group.

In case of home-owners, make two totals for expenditures: one excluding money spent on house, the other a grand total including it.

"Surplus and Deficit" indicates the difference between the estimated income and expenditure.

In case of home-owners, make two surplus and deficits to correspond with the two totals.

Under "Savings and Debts" enter statement given by the family as to their savings and debts. Do not enter as a debt here money borrowed in 1924 for house. Make an entry of amount borrowed on a line below "Debts."

2. After "Standard Budget" make no entry. That will be estimated later.

VIII. 1. Check "F" "M" "R" to indicate whether the building is on the front, middle, or rear portion of the lot.

2. "B." or "Other," check to indicate whether apartment is in basement or on one of the upper floors.

3. Enter number of rooms.

4. Enter amount of rent.

5. Enter total number of persons in household.

6. Enter number of single and double beds.

7. Check to indicate whether toilet is in the yard, the hall of the building, or in the apartment itself. Check "Private" if used only by the one household.

8. Check "Y" or "N" to indicate presence or absence of bath.

9. Enter number of stoves or check "Furnace."

10. Check to indicate presence of gas or electricity.

IX. 1–5 inclusive. Check "Y" or "N."

6. Describe other indications of comfort, as unusually good furniture, expensive rugs or lamps, etc.

X. Describe especially the indications of poverty noted and any others which are striking.

XI. Make no entry here.

XII. 1, 2, 3, 4. The answers to these questions will be used as a guide in determining the selection of one hundred families for a further intensive study of the standard of living maintained by the families of unskilled laborers. Therefore, it is important that these answers should be carefully considered.

APPENDIX C

INSTRUCTIONS USED FOR CALCULATING THE STANDARD BUDGET FOR FAMILIES INCLUDED IN THIS STUDY

RENT

If the family rents, use figure given by family. If family owns home, disregard this item temporarily.

FOOD

Estimate food according to Nesbitt May 1924 Budget under heading "Where Bread is Bought Per Week," using estimate for man and woman at "moderately hard muscular work."

Use estimates for children according to age limits as given by Nesbitt Budget. Boys or girls over eighteen years are classified as men or women.

Estimate food of children under one year according to the number of weeks in family (e.g., children in family under twenty-six weeks require food @ $1.35 a week; over twenty-six weeks, @ $1.80 a week).

Elderly persons (over seventy years) not in need of special diet are estimated according to Nesbitt Budget.

Food is estimated for members of family as well as relatives or boarders, only for length of time in family.

Use one-half the food estimate for members of household dependent upon family for "part board."

VARIATIONS WITH SIZE OF FAMILY

Add or deduct percentages given only for those weeks in which budget is less or more than amount Miss Nesbitt states.

CLOTHING

Use estimates as given in Nesbitt Budget with the following interpretations:

For a working woman, girl, or boy..... $9.17½ per mo.—$110.10 per yr.
For employment in office..... $11.00 per mo.—$132.00 per yr.
For girl or boy over thirteen years in high school, unemployed, or in instances where no statement as to school or employment is made, use lower estimate for working child ($110.10 a year).

Use same figure for women at work as for working girl or boy, only for time employed; for time unemployed, use figure for woman at home.

For girls or boys over thirteen years employed in office work only part of the year use $11.00 per month only for time in such employment, using $9.17½ for remainder of time.

Clothing is estimated for children under one year, using "time in family" to determine age of infant as well as length of time for which clothing is calculated, @ $1.85 per month or 43 cents a week.

Clothing is estimated for persons dependent upon family only for time in family. Use one-half clothing estimate for members of household dependent upon family for "part clothes."

FUEL AND LIGHT

Average for yr., 1 stove	$8.25 per mo.—	$99.00 per yr.
Average for yr., 2 stoves	$9.85 per mo.—	$118.20 per yr.
Average for yr., 3 stoves	$11.45 per mo.—	$137.40 per yr.

HOUSEHOLD SUPPLIES

Use estimates according to Nesbitt Budget. Children under one year as well as other members of household, including boarders and roomers, are counted as additional members of household only for time in family, 75 cents a month being added for each additional month.

CARFARE

Use figure given by family.

INSURANCE

Use figure given by family.

INCIDENTALS

Health, Education, and Recreation are lumped under "Incidentals" @ $1.00 a month for each member according to time in family except for working children.

For working children who turn their wages into family income, use 62½ cents a week or $32.50 a year for Recreation and Education for weeks employed, counting 25 cents a month additional for health. Use $1.00 a month for Health, Recreation, and Education, as for other members of family for weeks unemployed.

For working children who contribute only part of wages to family income, no estimate is made for Health, Recreation, and Education.

APPENDIX D

THE DIETS OF FIFTY-FOUR SELF-SUPPORTING, UNSKILLED LABORERS' FAMILIES[1]

I. INTRODUCTION

This special study was undertaken to ascertain the adequacy of the diets of self-supporting, unskilled workingmen's families in Chicago, whose income and general standards of living have been discussed in the body of this report. The investigation was based on schedules obtained from 54 families. The adequacy of the diets was measured in terms of the yield of certain food factors. A primary purpose of the study was to determine the relation between the nutritive value of these diets, their actual cost, and the expenditure for food for families of similar size and composition required by the Chicago Standard Budget.[2] It was desired, further, to investigate the bearing which the apportionment of the family food fund and the selection of individual food items have in determining the adequacy of the family diet.

The study was made of the diets of 54 families willing and able to keep reliable records of foods purchased during a period of one month. The group totaled 316 persons—118 adults and 198 children, averaging 2.2 adults and 3.7 children per family.

The distribution of families, by color and nationality, was as follows: colored, 20; Polish, 11; Italian, 8; Dutch, 4; of German and Lithuanian 3 each; American (white), 2; and, of Swedish, Hungarian, and Ukrainian, 1 each.

Each family kept a complete daily record[3] of the amount and cost of each article of food purchased. The homes were visited frequently to see that the records were kept accurately and according to a prescribed schedule. The families were not influenced in any way as to the choice of food purchased. Each family was paid ten

[1] This appendix has been prepared by Ethel Austin Martin, who was selected as a specialist in the home economics field.

[2] *The Chicago Standard Budget,* Chicago Council of Social Agencies, *Bulletin No. 5* (1925). See Appendix A of this report.

[3] See Supplement B for sample of monthly food record kept by one family.

cents a day as an incentive to keep a full and consecutive record. Several families kept the record for a period of two months. The information for the second month was used to check the reliability of the record for the first month.

METHOD OF CALCULATING THE NUTRITIVE VALUE OF THE DIETS

A short-cut method[1] for calculating the nutritive value of the diets was used. By this method the foods commonly appearing in the diet were divided into nine groups: two for fatty foods; one for milk; one for meat, fish, and eggs; one for sweets; two for cereals; one for vegetables and fruits; and one called "miscellaneous." Two weights (in pounds) were used for each group—one for ascertaining the energy value of the foods, and the other for protein and mineral values. The weights for the various foods, within a given group, were multiplied by factors representing the nutritive values of the foods relative to the value for the group. After the two weights were obtained for each group, they were multiplied by the factor for calories, protein, calcium, phosphorus, and iron for that group.

This method was employed because it was designed to determine the nutritive value of diets from gross amounts of food purchased. The detailed method for calculating diets, requiring ten times as long for the process, would probably have given no more reliable results, since computations were based only upon records of foods as purchased, not upon weights of foods actually consumed. Other short-cut methods take into account only protein and caloric factors. In this study it was desired to compute also the mineral content of the diets.

EXPENDITURE

The actual expenditure for food by each family was compared with the required expenditure for food for that particular family according to the Chicago Standard Budget. The amount which each family would need for food, according to the Chicago Budget, was

[1] This method was suggested by Miss Caroline Hunt, as a modified form of the methods employed by the United States Bureau of Labor Statistics in its *Cost of Living Inquiry of 1917-1919*. See especially, *Monthly Labor Review*, IX, p. (303) at p. (310). It has been since then considerably developed and is now being revised for publication by Miss Edith Hawley, of the United States Bureau of Home Economics, to whom grateful acknowledgments are here made.

determined by applying the schedule for estimating the minimum food expenditure for dependent families. The difference between each family's actual expenditure and the amount required by the Chicago Standard Budget has been expressed as a percentage of this standard.[1]

DIETARY STANDARDS

Atwater has said that the importance of a dietary standard should not be overemphasized, that it should be considered "only an indication, not a rule." Other investigators warn against the desire for mathematical expression of all factors in feeding standards.

Mindful of the above warnings and cognizant of the fact that dietary standards cannot be made to include all the qualities which a diet must have in order to be entirely adequate, this study has employed as "standards" certain quantitative figures. These figures, in a measure at least, indicate the varying degrees of adequacy of the diets. They can give no clue as to the ability of the diets to produce optimal nutrition.

The adequacy of the 54 family diets was measured in terms of the yield of five dietary factors: calories, protein, calcium, phosphorus, and iron. The amount of each of the above five factors in the actual diets was compared to amounts believed by certain recognized authorities to be necessary for physical well-being, and the difference was expressed as a percentage above or below the dietary standard.

Calories.—A standard of 3,600 calories for men and 2,800 calories for women was arbitrarily selected for adults. These standards were based upon generally recognized daily food requirements for adults and upon a knowledge of the activity of the men and women in this group.

The standards of Gillett[2] and of Holt[3] were used to determine the energy requirements of the children in each family. A calorie standard was computed from Gillett's table for boys and girls of each age-group by averaging the maximum and minimum requirements of each group. Since this table gives a single range of figures for children under two years of age, the minimum figure was applied to children under six months, and an average of the upper and lower

[1] See Supplement C for the relation of food expenditure and dietary factors to the standard in each of the 54 families.

[2] Lucy H. Gillett, *Food Allowances for Healthy Children*, Association for Improving the Condition of the Poor. (New York, 1917).

[3] L. Emmett Holt, *Food, Health, and Growth* (1922), p. 84.

limits was used for children between the ages of six months and two years. Gillett's figure for children under six months was also used for the Holt scale. Since no additional allowance was made for mothers during lactation, the above method was used to secure an adequate food standard for families with infants.

Protein.—Standards of 75 grams of protein for men and 60 grams for women, generally accepted for persons past the period of growth, were adopted for adults.

For children, a standard was established for each age by allowing 2.5 grams of protein for each 100 calories of total food required. This figure is recommended by Sherman[1] for families in which there are growing children. Two series of standard values for children of each age were worked out in this way from the energy requirement tables of Gillett and of Holt.

Calcium.—For adults, the Sherman standards[2] of 0.68 grams of calcium per day for men and 0.54 grams per day for women were used.

For children, the standard of 1.0 gram of calcium per day, based on the Sherman-Hawley[3] study of calcium requirements for growing children was used.

Phosphorus.—For adults, the Sherman standards[4] of 1.37 grams of phosphorus per day for men and 1.10 grams per day for women were adopted.

Sherman[5] stipulated recently that at least 1 gram of phosphorus is a reasonable daily requirement for a child. In a study of the amounts of food consumed by healthy children of preschool age, Goodhue[6] found the average daily intake of phosphorus to be 1.12 grams. One gram was considered standard in this study.

Iron.—The Sherman standard of 0.015 grams[7] of iron per day was used for both men and women. The requirement of calcium and

[1] H. C. Sherman, *Chemistry of Food and Nutrition* (2d ed., 1918), p. 383.

[2] *Ibid.*

[3] Sherman and Hawley, "Calcium and Phosphorus Metabolism in Childhood," *Journal of Biological Chemistry*, LIII (1922), 375.

[4] *Journal of Biological Chemistry*, XLI (1920), 173.

[5] H. C. Sherman, *op. cit.* (3d ed., 1926), p. 542

[6] Anne Leon Goodhue, *A Study of the Diets of Healthy Children from Two to Six Years by the Individual Method*, thesis (A.M.) University of Chicago, 1924, Department of Home Economics.

[7] Sherman, *op. cit.* (2d ed., 1918), p. 383.

phosphorus for adults is dependent upon the size of the individual and is usually less for a woman than for a man. This does not hold true in the case of iron. The functions of menstruation, pregnancy, and lactation raise the requirement of a woman to at least that of a man of equal energy requirement.

A daily standard was established for children of each age by allowing 0.0005 gram of iron for every 100 calories of food required. Sherman recommends this figure for families with growing children. Growth and development probably affect the requirement for iron to a greater extent than they do the total requirement for food. Two series of values for iron were thus derived from the energy-requirement tables of Gillett and of Holt.

Vitamins.—At the present time the only method of measuring the vitamin need has resulted from experiments showing variation from a normal condition. Obviously, only experimental animals have been employed to demonstrate the value of vitamin "units," which are, in a sense, dietary standards. For human beings the most practical method of assuring sufficient amounts of vitamins is to provide generous supplies of foods known to be rich in vitamins. Milk and its products, eggs, fruit, and vegetables are recognized reliable sources of the vitamins.

The scale resulting from these various combinations of dietary standards for calories, protein, calcium, phosphorus, and iron is shown in Table I.

APPLICATION OF STANDARDS

Each family's food record for the entire period was analyzed, and the nutritive value of the diet was expressed in terms of the five dietary factors listed above. The total amount for each factor was then reduced to a daily basis by dividing each total by the number of days for which the record was kept. The figures thus obtained were then considered the daily dietary intake of the family.

Heretofore dietary needs were calculated on the basis of a man's total food requirement. In calculating the needs of a family group, a child's requirement for each dietary factor was computed as a constant percentage of the father's requirement. Obviously, this was unjust to the child since it has been shown that the child's requirement for calories, protein, calcium, phosphorus, and iron bear different relationships to the requirement for the adult male. In the present study the need of each member of a family group has been considered on an individual basis.

TABLE I

Dietary Standards According to Age and to Sex Applied in This Study

Age in Years	Daily Requirement of Specified Dietary Factors															
	Males								Females							
	Number of Calories		Protein *Grams*		Calcium *Grams*	Phosphorus *Grams*	Iron *Grams*		Number of Calories		Protein *Grams*		Calcium *Grams*	Phosphorus *Grams*	Iron *Grams*	
	Holt	Gillett	Sherman-Holt	Sherman-Gillett	Sherman-Hawley	Sherman-Rose	Sherman-Holt	Sherman-Gillett	Holt	Gillett	Sherman-Holt	Sherman-Gillett	Sherman-Hawley	Sherman-Rose	Sherman-Holt	Sherman-Gillett
Under 6 months	900	900	23	23	1	1	.0045	.0045	900	900	23	23	1	1	.0045	.0045
6 months and under 2 years	950	1,050	24	26	1	1	.0048	.0053	940	1,050	24	26	1	1	.0047	.0053
2	1,135	1,150	28	29	1	1	.0057	.0058	1,110	1,130	28	28	1	1	.0056	.0057
3	1,275	1,250	32	31	1	1	.0064	.0063	1,230	1,210	31	30	1	1	.0062	.0061
4	1,380	1,350	35	34	1	1	.0069	.0068	1,300	1,290	33	32	1	1	.0065	.0065
5	1,490	1,450	37	36	1	1	.0075	.0073	1,410	1,370	35	34	1	1	.0071	.0069
6	1,600	1,550	40	39	1	1	.0080	.0078	1,520	1,450	38	36	1	1	.0076	.0073
7	1,745	1,650	44	41	1	1	.0087	.0083	1,660	1,530	42	38	1	1	.0083	.0077
8	1,920	1,750	48	44	1	1	.0096	.0088	1,815	1,610	45	40	1	1	.0091	.0081
9	2,110	1,850	53	46	1	1	.0106	.0093	1,990	1,700	50	43	1	1	.0100	.0085
10	2,330	2,050	58	51	1	1	.0117	.0103	2,195	1,800	55	45	1	1	.0110	.0090
11	2,510	2,250	63	56	1	1	.0126	.0113	2,520	1,900	63	48	1	1	.0126	.0095
12	2,735	2,500	68	63	1	1	.0137	.0125	2,864	2,000	72	50	1	1	.0143	.0100
13	3,040	2,700	76	68	1	1	.0152	.0135	3,210	2,100	80	53	1	1	.0161	.0105
14	3,400	2,850	85	71	1	1	.0170	.0143	3,330	2,200	83	55	1	1	.0167	.0110
15	3,855	3,000	96	75	1	1	.0193	.0150	3,235	2,300	81	58	1	1	.0162	.0115
16	4,090	3,050	102	76	1	1	.0205	.0153	3,160	2,400	79	60	1	1	.0158	.0120
17	3,945	.....	99	.....	1	1	.0197	.....	3,060	.....	77	.....	1	1	.0153	.....
18	3,730	.....	93	.....	1	1	.0187	.....	2,950	.....	74	.....	1	1	.0148	.....
Adult (over 18)	3,600		75		.68	1.37	.0150		2,800		60		.54	1.10	.0150	

The daily requirement of the family was computed[1] for each dietary factor from the standards outlined above. The amounts thus obtained were compared with the actual average daily intake, and the deviation above or below standard expressed as a percentage. Comparisons were made for each of the five factors of diet.

The energy requirement of families, calculated upon the basis of the standards designated by Gillett and by Holt, was found to be similar. Marked differences occurred only when there were one or more children of adolescent age in a family. On account of this marked similarity, only the Gillett standard for calories has been used as a basis for discussion in this study.

Division of food fund.—In an effort to discover how these 54 families divided their food fund, the amount spent by each family was classified in nine main divisions.[2] The total spent under each heading was expressed as a percentage of the entire amount spent for all items of food. This percentage distribution was then compared with the Sherman Budget division.[3]

II. THE COST OF DIETS

DAILY COST PER PERSON

An analysis of the expenditures for food of the 54 families revealed the fact that the cost of the diets per adult male per day ranged from 15 to 74 cents. The average cost was 39 cents, or about 4 cents a day less than is allowed by the Chicago Standard Budget. Table II shows that approximately one-fourth of the diets cost less than 30 cents; that one-third of the total number cost more than 40 cents; about one-half of the diets cost from 30 to 45 cents per day. Thirty-five families spent less than the 43 cents allowed by the Chicago Budget.

The standard of expenditure adopted here for the adult male is that of the expenditure scale of the Chicago Standard Budget. It should be noted that this budget estimates the required expenditure for 3,500 to 3,600 calories per day for a man at moderately hard work. This agrees very closely with the dietary standard adopted in this study. It is interesting to compare the results obtained with those of Sherman and Gillett in their study of *The Adequacy*

[1] See Supplement A for family dietary standards computed for one day.

[2] See Supplement D for the percentage distribution of the food fund in each of the 54 families.

[3] Table XIV.

and Economy of Some City Dietaries based on data for several cities in 1914–15. They found the average cost per man per day, on a 3,400 to 3,500 calorie basis, to be 32.9 cents, with a range from 11.2 cents to 76.0 cents. Approximately one-fourth spent less

TABLE II

COST OF DIETS PER ADULT MALE PER DAY IN 54 FAMILIES

Cost per Day per Adult Male (Cents)	Number of Families
Total	54
15–19	3
20–24	3
25–29	6
30–34	11
35–39	9
40–44	5
45–49	8
50–54	2
55–59	2
60–64	2
65–69	1
70–74	2

than 25 cents and one-fourth more than 40 cents. The general level of expenditure among these fifty-four families in Chicago in 1925 was slightly higher but not as much higher as the change in the cost of living would lead us to expect.

COST OF DIETS IN RELATION TO EXPENDITURE REQUIRED BY THE CHICAGO STANDARD BUDGET

To provide a convenient basis for comparison, the family diets were grouped according to the degree of variation from the amount required for the family by the Chicago Standard Budget. Table III shows the percentage deviation from the expenditures required for the family, together with the average cost per adult male per day and the range of cost within each group.

This table shows not only that two-thirds of the families spent less for food than that required by the Chicago Standard Budget but that a considerable number fell far below the standard. Fourteen families spent from 21 to 40 per cent less than the required amount; nine families spent from 41 to 71 per cent less than standard.

III. ADEQUACY OF DIETS

It was thought desirable to test the capacity of the Chicago Budget to provide for an expenditure that would include the essentials of an adequate diet. Each diet was therefore first compared with the dietary standards described above for calories, protein, calcium, phosphorus, and iron, and then compared as to actual cost with the amount that would have been provided for the family according to the Chicago Standard Budget.[1] Table IV shows the results of this comparison.

TABLE III

AVERAGE COST OF DIETS OF 54 FAMILIES AND RANGE OF COST PER ADULT MALE PER DAY ACCORDING TO PERCENTAGE ABOVE OR BELOW EXPENDITURE REQUIRED BY CHICAGO STANDARD BUDGET

Percentage above or below Expenditure Required by Chicago Standard Budget	Number of Families	Average Cost per Adult Male per Day (Cents)	Range of Cost per Adult Male per Day (Cents)
Total	54	39	15–74
Below standard budget	35		
41 or more per cent	9	21	15–26
21–40 per cent	14	31	27–33
0–20 per cent	12	38	35–41
Above standard budget	19		
0–20 per cent	10	47	44–49
21–40 per cent	4	54	52–57
41 per cent and over	5	67	62–74

This table groups the 54 diets according to degree of adequacy in food values, and at the same time makes possible a comparison of the actual cost with the required expenditure for the family according to the Chicago Standard Budget. Thus it will be seen that only 2 of the 54 diets were adequate in all food essentials and that these cost more than would have been allowed by the Chicago Budget. Of 4 diets adequate in all respects except calcium, 3 cost more than the Budget would allow, and 1 less. The 1 diet which was insufficient only in calories cost more than the Budget allowance.

It will be seen that of the 31 cases inadequate in two to four food essentials more than half cost less than the amount required by the Budget. Of the 16 diets inadequate in all essentials, moreover, 15 cost less than the Budget would allow for these families. This evidence seems to warrant the conclusion that the diet of a family whose

[1] Appendix A of this book.

food allowance is below the amount set as a minimum by the Chicago Budget will be likely to lack the food factors necessary to a normal diet.

Lest the standards used in the foregoing comparison be regarded as too high or be considered too arbitrary, it was decided to repeat the comparison on a less rigorous basis. Since practically all of the diets were low in calcium, it was decided to omit this factor from comparison. Also, diets not more than 10 per cent below the ac-

TABLE IV

NUMBER OF FAMILIES WHOSE ACTUAL EXPENDITURE FOR FOOD WAS GREATER OR LESS THAN THAT REQUIRED BY THE CHICAGO STANDARD BUDGET, CLASSIFIED BY ADEQUACY OF ACTUAL DIET

DEGREE OF ADEQUACY OF ACTUAL DIET	NUMBER OF FAMILIES		
	Total	Expenditure for Food Less Than That Required by the Chicago Standard Budget	Expenditure for Food Greater Than That Required by the Chicago Standard Budget
Total	54	35	19
Adequate in all essentials	2	.....	2
Adequate in all except calcium	4	1	3
Adequate in all except calories	1	.....	1
Adequate in all except protein	.....	.....	.....
Adequate in all except phosphorus	.....	.....	.....
Adequate in all except iron	.....	.....	.....
Inadequate in two, three, or four essentials	31	19	12
Inadequate in all essentials	16	15	1

cepted dietary standards, as well as those above, were considered "adequate" as to food essentials. A comparison of the cases on this basis appears in Table v. Practically the only change under the broadened classification is the increase from 2 to 13 in the number of diets adequate in all essentials, showing a marked concentration of cases near standard in food values. Ten of these cases cost more than that allowed by the Chicago Standard Budget. While the numbers of cases inadequate in more than one food essential have changed slightly, the distribution is practically the same as to cost of diets, and tends to confirm the conclusion that expenditure less than that required by the Chicago Standard Budget will usually result in a diet inadequate in necessary food factors.

A further analysis of the 13 diets that have been considered adequate in this table is presented in Table VI. Here a comparison is made for each family between the cost in terms of percentage deviation from the Chicago Standard Budget and the adequacy in terms of percentage deviation from the standard for each of the five dietary factors.

It will be noted from these tables that of the entire group of 54 families only 3 families who had diets that could be called adequate even from the point of view of a low standard had spent less than the

TABLE V

NUMBER OF FAMILIES WHOSE ACTUAL EXPENDITURE FOR FOOD WAS GREATER OR LESS THAN THAT REQUIRED BY THE CHICAGO STANDARD BUDGET, CLASSIFIED BY ADEQUACY OF ACTUAL DIET*

DEGREE OF ADEQUACY OF ACTUAL DIET†	NUMBER OF FAMILIES		
	Total	Expenditure for Food Less Than That Required by the Chicago Standard Budget	Expenditure for Food Greater Than That Required by the Chicago Standard Budget
Total	54	35	19
Adequate in all essentials	13	3	10
Adequate in all except calories	3	1	2
Adequate in all except protein	.....	.....	.....
Adequate in all except phosphorus	3	3	.....
Adequate in all except iron	1	1	.....
Inadequate in two or three essentials	23	17	6
Inadequate in all essentials	11	10	1

* Calcium was disregarded in Table V because of its uniform deficiency in these diets.
† Dietary factors were considered adequate if not more than 10 per cent below standard.

amount required by the Chicago Standard Budget. Analysis of these diets revealed that a comparatively good selection of economical foods accounted for their being adequate in all essentials except calcium. Family A36 used some whole-grain breakfast cereals, a fact remarkable in that this item was lacking from practically every other diet. No fancy breads or cake were purchased during the month. The one deficiency, calcium, might easily have been overcome if milk had been bought with the money which could have been saved by purchasing cheaper cuts of meat. Family A140 supplied the usual mineral deficiencies of the diet (except calcium) by the generous use of eggs and green vegetables.

Practically all, then, of the adequate diets cost more than would be allowed for the family by the Chicago Standard Budget. This fact would indicate that the Chicago Budget allows a reasonable amount to cover the needs of the diet, but makes no provision for lack of ability to purchase food economically. Unusual ability in the selection of economical foods must be exercised to secure an adequate diet at a cost below the standard set by the Chicago Budget.

TABLE VI

THIRTEEN FAMILY DIETS COMPARED IN EXPENDITURE WITH THE CHICAGO STANDARD BUDGET AND IN DIETARY FACTORS WITH RECOGNIZED DIETARY STANDARDS*

FAMILY NUMBER	PERCENTAGE ABOVE OR BELOW CHICAGO BUDGET IN EXPENDITURE	PERCENTAGE ABOVE OR BELOW DIETARY STANDARDS				
		Calories	Protein	Calcium	Phosphorus	Iron
A36	−12	+19	0	−49	+ 7	− 3
A140	−14	+ 9	+ 96	−25	+ 8	+ 26
Am6	− 6	+59	+ 38	−22	+ 5	− 6
A124	+ 5	+29	+ 55	− 5	+ 4	+ 6
M23	+ 2	− 4	+179	−58	−10	− 7
L3	+14	+10	+ 59	−45	+ 1	− 7
A28	+32	+35	+ 5	−23	+ 3	+ 1
J65	+22	+23	+ 11	−47	− 4	+ 21
A182	+50	− 6	+ 43	− 3	+ 4	− 5
A55	+45	− 6	+ 65	+ 8	+43	+ 28
J3	+63	+23	+ 46	−57	+15	+180
J24	+71	+60	+157	+19	+87	+ 39
A156	+56	+19	+141	+ 4	+29	+ 37

*The factor "calcium" was disregarded in selecting cases in this table for the reason that all but 4 of the family diets were deficient in this food essential. The standard applied with regard to other factors is also 10 per cent below that used in other tables.

The records of these 54 families confirm the view that random selection of food, even when the allowance is generous, is not likely to secure a diet adequate in all food essentials. The omission of one food essential, due to ignorance of the body's needs, may render a diet inadequate. For example, the group high above standard in food expenditure was, in general, above standard in dietary factors. However, family J3 (Table VI), which was 63 per cent above standard in food expenditure, was below standard in calcium intake. The unwise selection in this instance consisted in excessive use of some foods and the omission of a sufficient quantity of milk from its diet.

How important a part selection of individual foods plays in the adequate return in dietary factors has been shown by studies made

of various groups of families. Sherman and Gillett,[1] in their study of 92 family diets, point out the uncertainty of return in dietary factors, due to individual variation in the selection of foods. Of this they say:

> Many of the studies gave an evidence of deficiencies in food value in one or more important aspects. These deficiencies occurred frequently where the amount of money spent for food was adequate to supply sufficient nourishment had it been spent wisely.

Roberts,[2] in her study of children of pre-school age in Gary, Indiana, noted that in many cases faulty selection of individual foods kept the diets on a low plane when there was sufficient money to supply an adequate diet. A recent study[3] made of men and women college students, eating in groups, where the amount spent for food was not of prime importance, showed that, while the quantity of food was sufficient, the unwise selection of food rendered the diets deficient in mineral content.

In every group, regardless of economic status, one will usually find families who, by exercising good judgment in the purchase of foods, secure an adequate diet for less money than do other families who spend more money but lack knowledge of the correct selection of food. It is thus apparent that faulty selection of food is a point which should be recognized and for which allowance should be made in setting any standard for food expenditure.

ADEQUACY OF EACH DIETARY FACTOR IN RELATION TO EXPENDITURE

In the preceding sections the diets of these families have been described as adequate or inadequate from the standpoint of all five dietary factors. In Table VII these diets are classified as above or below standard with respect to each of the separate dietary factors. In calories, twice as many families are below standard as above; while in protein intake, the reverse is true—there are one-half as many families below as above the amount prescribed as necessary. Phosphorus and iron show the same distribution above and below standard. There are more than three times as many families below

[1] H. C. Sherman and L. H. Gillett, *The Adequacy and Economy of Some City Dietaries*, Association for Improving the Condition of the Poor (1917).

[2] Lydia Roberts, Part II, "Diet of the Children," *Children of Pre-School Age in Gary, Indiana*, U.S. Dept. Labor, Children's Bureau, *No. 122* (1925).

[3] M. Kramer and E. Grundmeier, "Food Selection and Expenditure in a College Community," *Journal of Home Economics*, January, 1926.

standard as there are above standard in these two items. Calcium shows the greatest deviation from the standard requirement, with 50 families below and only 4 families above standard.

TABLE VII

NUMBER OF DIETS ABOVE AND BELOW STANDARD WITH RESPECT TO FIVE DIETARY FACTORS

DIETARY FACTORS	NUMBER OF DIETS		
	Total	Below Standard	Above Standard
Calories	54	37	17
Protein	54	17	37*
Calcium	54	50	4
Phosphorus	54	41	13
Iron	54	41	13

*One of these was exactly standard

For each dietary factor there are considerably more families above standard among those who spent more than the amount required by the Chicago Standard Budget than among those who spent less than that amount.

The percentage deviation of the diet of each of the 54 families, from the standards for the several dietary factors investigated, has also been computed and is presented for each factor in Tables VIII–XII, correlated with the percentage deviation of expenditure from that required by the Chicago Standard Budget. The intersecting point of the heavy horizontal and vertical lines of each table represents the absolute standard for the two factors compared. The scattering of the cases around this point shows their relationship to the accepted standards. If the case occurs in the upper right-hand quadrant, it is above standard in both factors. If it falls in the lower right-hand quadrant or in the upper left-hand quadrant, it is below in one factor and above in the other factor. If it falls within the lower left-hand quadrant, it is below standard in both factors.

Calories.—Of the 19 families above standard in food expenditure, 9 are also above standard in caloric intake. Thirty-five families are below standard in food expenditure. Of this number, 8 families are above and 27 below the standard requirement for calories.

A more detailed comparison between the adequacy of the diet in terms of calories and the variation in expenditure is shown in Table VIII.

TABLE VIII

DIETS COSTING A SPECIFIED PERCENTAGE ABOVE OR BELOW THE CHICAGO STANDARD BUDGET CLASSIFIED BY PERCENTAGE ABOVE OR BELOW STANDARD CALORIC REQUIREMENT

PERCENTAGE ABOVE OR BELOW STANDARD CALORIC REQUIREMENT	TOTAL	PERCENTAGE BELOW CHICAGO STANDARD BUDGET IN EXPENDITURE							PERCENTAGE ABOVE CHICAGO STANDARD BUDGET IN EXPENDITURE							
		60–69	50–59	40–49	30–39	20–29	10–19	Less than 10	Less than 10	10–19	20–29	30–39	40–49	50–59	60–69	70–79
Total	54	2	2	5	6	10	7	3	5	5	3	1	1	2	1	1
Above standard:																
60–69	2	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1
50–59	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
40–49	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30–39	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
20–29	3	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....
10–19	6	.....	.....	.....	.....	1	1	.....	.....	2	1	.....	.....	1	.....	.....
Less than 10	3	1	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Below standard:																
Less than 10	9	1	.....	.....	1	2	1	.....	2	.....	.....	.....	1	1	.....	.....
10–19	5	.....	.....	.....	.....	.....	2	1	1	.....	1	.....	.....	.....	.....	.....
20–29	8	.....	.....	.....	.....	2	1	1	1	2	1	.....	.....	.....	.....	.....
30–39	4	.....	2	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40–49	7	.....	.....	3	1	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
50–59	4	.....	.....	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Of the total group of 54 families among the 19 who spent enough or more than the required amount for food, according to the Chicago Standard Budget, one-half received a diet sufficiently high in energy, judging by the caloric standard. Of the 35 who did not spend enough for food, only one-fifth secured sufficient calories. These figures indicate a tendency to an adequate calorie return when the expenditure for food is as much as or more than that allowed for the same family by the Chicago Standard Budget. However, because not more than one-half of the families with adequate food expenditure received sufficient calories, we must deduce that a diet sufficiently high in cost is not necessarily high in fuel. Also, a diet adequate in calories may be too low in cost to provide other essentials in sufficient quantity. Evidence of this uncertainty is demonstrated in cases described below: family A129[1] is 63 per cent below standard in expenditure for food, while in calories it ranks standard (+2 per cent). On the other hand, family A55[2] spends 45 per cent above the standard for food and is 6 per cent below standard in calories. Families M4[3] and Am6[4] spend approximately what they should for food; the former is 21 per cent below in calories, and the latter, 59 per cent above in calories. Choice of economical fuel-yielding foods is a factor in determining the caloric yield of a diet for specified expenditure.

It is noteworthy that the 8 families below standard in food expenditure (Table VIII) and above standard in calories are not far above in calories (upper left quadrant). The 10 families above in food expenditure but below in calories are not far below in calories (lower right quadrant), while those families below standard in both cost and calories deviate as much as 60 per cent in calories (lower left quadrant), and those above in both range as high as 70 per cent above standard in calories (upper right quadrant). It is evident then that while diets above standard in cost are more apt to yield adequate calories, this is not necessarily true unless a wise selection of food is made. It is apparent also that when diets above standard in cost fall below standard in calories they do not tend to fall as far below standard as they do when the cost is also deficient.

Protein.—Of the 19 families above standard in food expenditure, 18 are also above standard in protein intake. Thirty-five families

[1] See below, Appendix E, Family number 26.

[2] *Ibid.*, Family number 10.

[3] *Ibid.*, Family number 4.

[4] *Ibid.*, Family number 3.

TABLE IX

DIETS COSTING A SPECIFIED PERCENTAGE ABOVE OR BELOW THE CHICAGO STANDARD BUDGET CLASSIFIED BY PERCENTAGE ABOVE OR BELOW STANDARD PROTEIN REQUIREMENT

PERCENTAGE ABOVE OR BELOW STANDARD PROTEIN REQUIREMENT	TOTAL	PERCENTAGE BELOW CHICAGO STANDARD BUDGET IN EXPENDITURE							PERCENTAGE ABOVE CHICAGO STANDARD BUDGET IN EXPENDITURE							
		60–69	50–59	40–49	30–39	20–29	10–19	Less than 10	Less than 10	10–19	20–29	30–39	40–49	50–59	60–69	70–79
Total	54	2	2	5	6	10	7	3	5	5	3	1	1	2	1	1
Above standard:																
100 or over	3	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	1
90–99	3	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....
80–89	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
70–79	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
60–69	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....
50–59	2	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....
40–49	3	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	1	.....	.....
30–39	6	.....	.....	.....	.....	1	.....	2	2	.....	1	.....	.....	.....	.....	.....
20–29	5	.....	.....	.....	1	1	.....	1	.....	2	.....	.....	.....	.....	.....	.....
10–19	6	.....	.....	.....	.....	3	2	.....	1	.....	.....	.....	.....	.....	.....	.....
Less than 10	5	.....	.....	.....	2	1	1	.....	.....	.....	.....	1	.....	.....	.....	.....
Standard	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Below standard:																
Less than 10	4	1	.....	1	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
10–19	6	.....	1	1	1	2	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
20–29	4	.....	1	.....	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
30–39	2	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40–49	2	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

fall below standard in food expenditure—17 of this number are above, 17 are below, and 1 is standard in protein intake.

These figures indicate that when sufficient money was expended for food, according to the Chicago Budget, there was slight danger of receiving insufficient protein in the diet. In families where expenditure was below standard, there was an even chance of receiving or not receiving an adequate amount of protein.

Study of individual cases shows that the families farthest below standard in food expenditure are almost uniformly below standard in protein. This is due, in part, to the fact that small amounts of all foods were consumed. On the other hand, families farthest above standard in expenditure, as shown in Table IX, are uniformly high in protein, due largely to the much greater total bulk of food consumed. The percentage of the food fund spent on the various items does not vary greatly throughout the families. The families which fall near standard in food expenditure show a varying return in protein, giving evidence again that selection plays a part in the return of dietary factors. Scrutiny of some of the individual diets shows that choice of expensive cuts of meat is largely responsible for a low return in protein for money expended. The extensive use of meat in the diets and the lack of milk show that the quality of protein could be improved for these families, all of which include growing children, by buying less meat and more milk. The range of deviation in protein consumption below and above standard, as shown in Table IX, is much more pronounced in those families which are below and above standard, respectively, in expenditure. As in the case of calories, so in protein, the families which spent enough for food but were below in protein were not far below in the latter (lower right quadrant); while those below in expenditure and above in protein were not, in the majority of cases, far above standard (upper left quadrant).

Comparing Tables VIII and IX, it may be readily noted that there is a closer relationship between cost of diets and protein-return than between cost and calorie-yield. In other words, as the diets increase in cost, they rather uniformly increase in protein content; while the yield in calories is markedly non-uniform throughout the diets.

Calcium.—Of the 19 families whose expenditure was greater than that required by the Chicago Standard Budget, 4 are also above in calcium, but 15 families fall below. Of the 35 families below in food expenditure, the entire number is below standard in calcium intake. These figures would seem to indicate that a diet adequate in calcium

is hard to attain. The reverse is true. Generally speaking, the calcium intake of the diet is in direct proportion to the milk consumed. Examination of the individual family diets reveals that little milk was used. Faulty division of the food budget was the chief factor in cutting down the milk in the diets. As a group, the families spent approximately the same percentage of their food budget on milk (11 per cent). The fact that 4 diets were above standard in calcium was due to the fact that the total expenditure for food was far above standard and the bulk of food purchased much larger, thus increasing the amount of milk. In diets approximating standard in food expenditure, the situation could be remedied by doubling the amount of milk used in the diet. The 4 families above standard for calcium fell within the range of from 1 to 20 per cent above (Table x), while the 50 families below, ranged from 1 to 90 per cent below standard. That the condition of low calcium is not generally rectified by an increase in expenditure for total food, is shown by the small number of cases above standard in calcium, even when enough or more than enough money was spent for food. That the condition *may* be easily rectified is shown by the fact that calcium was abundant in those diets in which milk was supplied in sufficient quantities.

Phosphorus.—Among 19 families above standard in food expenditure, 10 families, or about one-half are also above standard in phosphorus intake; and 9, or the other half, are below standard in phosphorus. Of the 35 families which fall below standard in their food expenditure, 32 also fall below standard in phosphorus. These figures indicate that of the entire group of families there was very little chance of securing a diet adequate in phosphorus with the food expenditure below standard. When the food expenditure was standard or above, one-half of those families secured phosphorus in greater amount than the standard requirement. It will be noted from Table xi that the families above standard in both phosphorus and food expenditure are, in the majority of cases, high above in food expenditure. In these high-cost diets, a greater amount of all foods was purchased, increasing the supply of milk, meats, eggs (yolks), and cereals—all yielding phosphorus. Diets high in phosphorus and approximating standard food expenditure showed a fair choice of these foods, except milk.

Iron.—Among the 19 families above standard in food expenditure, 9 are also above and 10 below standard in iron intake. Of the 35 families which fall below in food expenditure, 31 are also below standard in iron.

TABLE X

DIETS COSTING A SPECIFIED PERCENTAGE ABOVE OR BELOW THE CHICAGO STANDARD BUDGET CLASSIFIED BY PERCENTAGE ABOVE OR BELOW STANDARD CALCIUM REQUIREMENT

PERCENTAGE ABOVE OR BELOW STANDARD CALCIUM REQUIREMENT	TOTAL	PERCENTAGE BELOW CHICAGO STANDARD BUDGET IN EXPENDITURE							PERCENTAGE ABOVE CHICAGO STANDARD BUDGET IN EXPENDITURE							
		60–69	50–59	40–49	30–39	20–29	10–19	Less than 10	Less than 10	10–19	20–29	30–39	40–49	50–59	60–69	70–79
Total	54	2	2	5	6	10	7	3	5	5	3	1	1	2	1	1
Above standard:																
60–69																
50–59																
40–49																
30–39																
20–29																
10–19	2								1							1
Less than 10	2												1	1		
Below standard:																
Less than 10	2								1					1		
10–19	1								1							
20–29	4					1	1	1				1				
30–39	3			1	1			1								
40–49	12			2		1	1	1	2	2	3					
50–59	10			1		3	3			2					1	
60–69	10	1			3	4	1			1						
70–79	4		1	1	1		1									
80–89	4	1	1		1	1										

TABLE XI

DIETS COSTING A SPECIFIED PERCENTAGE ABOVE OR BELOW THE CHICAGO STANDARD BUDGET CLASSIFIED BY PERCENTAGE ABOVE OR BELOW STANDARD PHOSPHORUS REQUIREMENT

PERCENTAGE ABOVE OR BELOW STANDARD PHOSPHORUS REQUIREMENT	TOTAL	PERCENTAGE BELOW CHICAGO STANDARD BUDGET IN EXPENDITURE							PERCENTAGE ABOVE CHICAGO STANDARD BUDGET IN EXPENDITURE							
		60–69	50–59	40–49	30–39	20–29	10–19	Less than 10	Less than 10	10–19	20–29	30–39	40–49	50–59	60–69	70–79
Total	54	2	2	5	6	10	7	3	5	5	3	1	1	2	1	1
Above standard:																
80–89	1															1
70–79																
60–69																
50–59																
40–49	1												1			
30–39																
20–29	1													1		
10–19	1														1	
Less than 10	0						2	1	1	2	1	1		1		
Below standard:																
Less than 10	4					1		1	1		1					
10–19	5					1		1	2	1						
20–29	9	1		1		2	2		1	1	1					
30–39	9			1	1	4	2			1						
40–49	7		1		3	2	1									
50–59	6	1		3	2											
60–69	1		1													

TABLE XII

DIETS COSTING A SPECIFIED PERCENTAGE ABOVE OR BELOW THE CHICAGO STANDARD BUDGET CLASSIFIED BY PERCENTAGE ABOVE OR BELOW STANDARD IRON REQUIREMENT

PERCENTAGE ABOVE OR BELOW STANDARD IRON REQUIREMENT	TOTAL	PERCENTAGE BELOW CHICAGO STANDARD BUDGET IN EXPENDITURE							PERCENTAGE ABOVE CHICAGO STANDARD BUDGET IN EXPENDITURE							
		60–69	50–59	40–49	30–39	20–29	10–19	Less than 10	Less than 10	10–19	20–29	30–39	40–49	50–59	60–69	70–79
Total	54	2	2	5	6	10	7	3	5	5	3	1	1	2	1	1
Above standard:																
100 and over	1														1	
90–99																
80–89																
70–79																
60–69																
50–59																
40–49																
30–39																
20–29	2													1		1
10–19	3						1				1		1			
Less than 10	1				1											
	6					1	1		1	2		1				
Below standard:																
Less than 10	8					1	1	2	1	1	1			1		
10–19	4				1	1		1		1						
20–29	6						3		3		1					
30–39	10	1		1	2	4	1			1						
40–49	5		1		2	1										
50–59	7	1	1	3		2										
60–69	1			1												

With expenditure for food standard or above, there is about an equal chance of securing or not securing a diet adequate in iron, the possibility of securing sufficient iron growing greater as the percentage expenditure above standard increases (Table XII). The figures seem to indicate in general that it is dangerous to fall below the expenditure allowed by the Chicago Standard Budget and that the items of diet must be carefully selected even when the expenditure for food is assumed to be adequate. In these 54 family diets, rather generous use of green vegetables brought the iron content to standard in diets high in cost. In diets below in iron, either inadequate sums were spent for green vegetables or enough money was spent but upon expensive and out-of-season vegetables, thus reducing the amount.

THE SECOND MONTH'S FOOD RECORD

Seven families kept their food record over a period of two months. The second month's record was computed, and the variations from standard were compared with those of the previous month. With slight exceptions, expenditure and dietary factors, which were above or below standard, respectively, the first month, remained so the second month. Four families showed some general improvement in the diet during the second month, while 3 families did not fare so well. The fact that diets did not uniformly improve and that none improved notably shows that the families were not given suggestions as to food selection by the investigator and that there was no tendency to "doctor" the diet records.

IV. THE DIVISION OF THE FOOD FUND

The foods purchased by each family were divided into nine groups. The total cost of food was recorded for each family and the percentage spent for each food group was computed. Table XIII shows the groups of foods and percentage distribution of the food fund for each group. The diets were studied to see if the percentage apportionments of expenditure for specified food groups were affected by the variation from standard in total cost of the food. The distribution was found to be fairly uniform through all of the cost levels.

Table XIV shows the percentage distribution of the food fund for the 54 families and for a group of 224 families[1] well distributed over the country and representative of all levels of income and of

[1] Sherman, *op. cit.* (3d ed., 1926), p. 554.

expenditure for food. The average of the latter group presents a fairly accurate picture of the division of the food fund in the average American family.

TABLE XIII

PER CENT DISTRIBUTION OF EXPENDITURE OF 54 FAMILIES FOR SPECIFIED GROUPS OF FOODS

Classification of Foods	Per Cent Distribution of Expenditure of 54 Families
Total	100.0
I. Fats (lard, butter, butter substitute)	8.3
II. Fat meats (salt pork, sausage, bacon)	3.7
III. Milk (whole, skim, butter, condensed)	10.9
IV. Meat, fish, eggs	28.3
V. Miscellaneous (cheese, chocolate, etc.)	8.0
VI. Sugars and syrups	3.7
VII. Flours, cereals, breakfast foods	5.5
VIII. Bread, cake	13.3
IX. Fruits and vegetables	18.3

TABLE XIV

PER CENT DISTRIBUTION OF EXPENDITURE FOR SPECIFIED FOODS BY THESE 54 FAMILIES COMPARED WITH THAT OF ANOTHER GROUP OF 224 FAMILIES

Types of Food	Per Cent Distribution of Expenditure		
	By 54 Families of This Study	By Representative Group of 224 Families*	Considered Desirable by Sherman†
Total	100.0	100.0	100
Fats	8.2	9.6	10–12
Fat and cured meats	3.7		
Milk	10.9	10.6	25–30
Meat, eggs, fish	28.3	37.6	15–22
Miscellaneous (cheese, chocolate, cocoa, nuts)	8.0	3.5	2–3
Sugar, cornstarch, syrups	3.7	4.6	About 3
Cereals	5.5	18.3	12–15
Bread	13.3		
Vegetables and fruits	18.4	15.8	15–18

* Sherman, *op. cit.* (3d ed., 1926), p. 555.

† *Ibid.* (2d ed., 1918), p. 390.

By comparing the distributions of the two family groups and by contrasting the groups with Sherman's proposed division, the following deductions become evident: The Chicago families spent less than the 224 families for meat, fish, and eggs and about the same for milk, grain products, fruits, and vegetables. When compared with Sherman's proposed division, however, the 54 families spent twice what they should for meat, less than half enough for milk, and slightly more than necessary for grain products. Other items were fairly close to standard; especially was this true in the case of fruits and vegetables.

V. FOOD SELECTION

A more detailed study was made of the diets of certain of the 54 families to learn whether or not foods were purchased to produce a satisfactory return in the various dietary factors. These diets were also examined to determine their nutritive value and to learn the division of the food fund. Three groups of diets[1]—one composed of 7 diets that cost within 10 per cent of the amount required for the family by the Chicago Standard Budget, a second group of 7 costing more than the standard, and a third group of 13 costing less than standard—were studied to learn the effect which total cost of the diets had upon selection of food.

The general conclusions to be drawn from these studies may be summarized as follows:

Adequacy of the diets:

The degree of adequacy increased as the amount spent for food increased. This circumstance was due largely to the fact that families on a high cost level consumed a larger bulk of food than families on a lower cost level.

Division of food fund:[2]

The percentage division of the food fund was approximately the same for each group. When compared with the Sherman Budget

[1] See below p. 186, for Appendix E in which are assembled summaries of 27 of the 54 family budgets. These summaries illustrate the method used in studying the budgets and represent the three groups to which reference has been made, namely, (1) 7 families whose expenditures were within 10 per cent of the amount required; (2) 7 families whose expenditures were more than 10 per cent above the amount required; and (3) 13 families whose expenditures were more than 10 per cent below the amount required by the Chicago Standard Budget.

[2] Supplement D; pp. 184, 185.

division, expenditure for meat was high; for milk, low; for cereal grains, somewhat high; for fruits and vegetables, for fats, and for sugar, approximately correct.

Selection of foods:

Families in the standard and above-standard groups as to expenditures followed much the same practices in selecting individual items of food. There were some instances of unwise selection. For example: prepared meats and expensive cuts of fresh meat; fancy breads, cakes, and pastry; fruits and vegetables out of season.

The families whose expenditures were far below standard, for the most part, selected the cheaper cuts of meat, plain breads, and the cheaper green vegetables but omitted fruit.

Selection of foods in diets at different cost levels:

A comparison, on the basis of five dietary standards, between the actual diets of 7 families spending within 10 per cent of the amount required by the Chicago Standard Budget is presented in Table xv.

TABLE XV

RETURN IN DIETARY FACTORS FOR GROUP I, COMPOSED OF 7 FAMILIES SPENDING WITHIN 10 PER CENT OF THE AMOUNT ALLOWED BY THE CHICAGO STANDARD BUDGET

FAMILY NUMBER	PERCENTAGE ABOVE OR BELOW SPECIFIED STANDARD					
	Cost	Calories	Protein	Calcium	Phosphorus	Iron
A124	+ 5	+29	+ 55	− 5	+ 4	+ 6
M36	+ 4	−21	+ 11	−42	−27	−24
M23	+ 2	− 4	+179	−42	−10	− 7
M4	− 5	−21	+ 31	−32	−18	−10
A67	− 6	−14	+ 21	−47	− 8	− 9
AM6	− 6	+59	+ 38	−22	+ 5	− 6
AM20	−10	−20	− 1	−59	−33	−25

An examination of Table xv will show that:

1. No family was standard in all dietary essentials.

2. All families were deficient in calcium.

3. One family, below standard in food expenditure, was above standard in other dietary essentials except iron (and calcium).

4. One family above standard in food expenditure exceeded standard in all dietary essentials except calcium.

A comparison of these diets[1] with the standard proposed by

[1] Supplement D; pp. 184, 185. See also above, p. 169.

Sherman for distribution of expenditures among the several groups of foods shows the following results:

1. All families spent too large a proportion of the food fund on meat; the range of expenditure for meat, fish, and eggs was 25 to 225 per cent above the Sherman allotment.

2. No family spent a large enough proportion for milk. The majority of families spent from one-fourth to one-half the amount to supply the necessary calcium in the diet.

3. All families were above standard in the purchase of cereal grains.

4. The group, as a whole, spent approximately the right proportion of the food fund for fruits and vegetables.

Finally, an examination of the foods selected by these families leads to the following conclusions:

1. Prepared meats and choice cuts of fresh meats were purchased at a higher price than was justified by the return in nutritive value.

2. There was scanty use of milk, thereby cutting down the calcium and depriving the children of a desirable type of protein.

3. There was a wide range in choice of cereals. Some families spent their money almost entirely on plain bread; others bought much spaghetti, fancy bread, or cake. There was a conspicuous lack of whole-grain cereals in the diet.

4. Although a desirable proportion of the food fund was devoted to fruits and vegetables, out-of-season varieties were chosen in many cases, preventing frequent purchase of this desirable type of food.

SUMMARY OF FINDINGS FOR GROUP II COMPOSED OF 7 FAMILIES 14 TO 71 PER CENT ABOVE STANDARD IN FOOD EXPENDITURE[1]

Food purchases of families in the second group bulked large when contrasted with purchases of families in groups spending much smaller amounts in proportion to the standard. The large bulk was responsible for a greater yield in all dietary essentials. Apportioning the food fund on the percentage basis gives a relative rather than an absolute picture of the family's food purchases. The total amount actually spent on food in this group was approximately one-half to four-fifths more than standard requirement. This fact must be considered when the percentage division of the food fund for this group is compared with that of groups of families standard or below stand-

[1] For studies of individual families 10 per cent or more above standard in food expenditure see Appendix E, pp. 193 f.

ard in expenditure. This point is illustrated by the following example: According to the percentage apportionment, family A156[1] (Table XVI) spent one-half the proportion required by Sherman for milk but more than half again as much on its entire food supply as the Chicago Standard Budget requires. The absolute amount of milk consumed was therefore sufficiently large to bring the calcium content of the diet up to standard.

The results of the comparison of these actual diets with the standard dietary requirements are shown in Table XVI, from which

TABLE XVI

RETURN IN DIETARY FACTORS FOR GROUP II COMPOSED OF 7 FAMILIES SPENDING FROM 14 TO 71 PER CENT MORE THAN THE AMOUNT ALLOWED BY THE CHICAGO STANDARD BUDGET

FAMILY NUMBER	PERCENTAGE ABOVE OR BELOW SPECIFIED STANDARD					
	Cost	Calories	Protein	Calcium	Phosphorus	Iron
G24	+71	+60	+157	+19	+87	+ 39
J3	+63	+23	+ 96	−57	+15	+180
A156	+56	+19	+141	+ 4	+29	+ 37
A182	+50	− 6	+ 43	− 3	+ 4	− 5
A55	+45	− 6	+ 65	+ 8	+43	+ 28
A28	+32	+35	+ 5	−23	+ 3	+ 17
L3	+14	+10	+59	−45	+ 1	− 7

it will be seen that two families were above standard in all dietary essentials; one family was above standard in all except calcium; one above in all except calories; and one below in calories, iron, and calcium.

Division of food fund (comparison with Sherman Budget division).—In each family the proportion spent for meat was considerably above standard; practically all families spent too small a proportion of the food fund on milk; each family spent a larger proportion than it should for cereal grains, fruits, and vegetables.

There was unwise food selection in that:

1. Prepared meats and expensive cuts of fresh meats were purchased to a considerable extent.

2. Three families consumed enough milk to produce a calcium yield in excess of standard, while one family was approximately standard in this respect.

[1] Appendix E, family number 12.

3. Cakes, pies, and fancy breads were purchased in large amounts.

4. Fruits and vegetables were purchased out of season to a degree which made it impossible to secure them frequently, even though the limits of the budget were so far exceeded.

SUMMARY OF FINDINGS FOR 13 FAMILIES 10 TO 65 PER CENT BELOW STANDARD IN FOOD EXPENDITURE[1]

The diets of families in this group were lacking in *quantity* of food. This circumstance caused a deficiency in practically all dietary

TABLE XVII

RETURN IN DIETARY FACTORS FOR GROUP III COMPOSED OF 13 FAMILIES SPENDING FROM 12 TO 65 PER CENT BELOW THE AMOUNT REQUIRED BY THE CHICAGO STANDARD BUDGET

FAMILY NUMBER	PERCENTAGE ABOVE OR BELOW SPECIFIED STANDARD					
	Cost	Calories	Protein	Calcium	Phosphorus	Iron
A36	−12	+19	0	−49	+ 7	− 3
L9	−12	−13	+ 3	−59	−27	−29
J11	−16	−19	+11	−63	−38	+ 8
L10	−25	−43	−19	−58	−42	−57
A54	−33	−51	−20	−63	−47	−45
M19	−41	−41	− 8	−58	−25	−32
K18	−43	−48	−10	−44	−33	−50
J39	−44	−59	−42	−73	−57	−58
D2	−48	−51	+95	−38	−50	−59
C6	−53	−37	−19	−80	−60	−48
J6	−59	−36	−23	−71	−48	−58
A129	−63	+ 2	− 2	−61	−24	−31
J36	−65	− 7	−32	−83	−52	−55

essentials. The apportionment of the food fund was similar to that of families spending standard or more than standard amounts for food. However, this apportionment does not give an accurate picture of the total outlay for food, since the amount actually spent by these families was approximately one-half enough when compared with the Chicago Budget. The details with regard to dietary standards are indicated in Table XVII, which shows that only 5 families were up to standard in any dietary essential.

[1] For studies of individual families 10 to 65 per cent below standard in food expenditure see Appendix E, pp. 201 f.

Division of the food fund[1] (comparison with Sherman Budget division).—The proportion of the fund devoted to meat was high; to milk, low (about one-half enough); to cereal grains and fruit and vegetables, approximately correct.

Selection of foods.—Many of the less-demanded cuts of meat were bought, and few prepared meats used. Eggs were purchased frequently. Flour was purchased for baking bread. When bread was bought, little of the fancy variety was selected. Fruit was practically omitted from these diets. Vegetables were used more generally than fruits, but too frequent selection of the out-of-season varieties excluded an abundance of the more economical kinds.

VI. SUMMARY AND CONCLUSIONS

In the preceding pages the diets of 54 self-supporting workingmen's families living in Chicago have been analyzed. This study has been based upon records of amounts and costs of all foods purchased during one month by each family. A short-cut method was used to compute the calories, protein, calcium, phosphorus, and iron yielded by each diet.

Dietary standards suggested by recognized authorities were applied to the diet of each family, and the adequacy or deficiency of the family in each dietary factor was calculated. The Chicago Standard Budget,[2] based upon the dietary needs of the individuals in the family group, was accepted as standard for expenditure; and the actual expenditure of each family was compared with it. By relating the cost of diets to the return in dietary factors, it was possible to indicate the extent to which standard amounts spent for food resulted in an adequate diet. The percentage of the food fund of the 54 families, spent on the different staple food materials, was computed and compared with several well-known budget divisions. Case studies were made of one-half (27) of the families, grouped on three different levels of expenditure for food to determine to what extent high, low, and standard food costs affect the percentage division of the budget and the selection of specific items of food.

COST OF DIETS

The average cost of the 54 family diets per person per day was 39 cents, with a range from 15 cents to 74 cents. One-fourth cost less than 30 cents, and one-third cost more than 40 cents. Nineteen

[1] Supplement D, pp. 184, 185.

[2] *The Chicago Standard Budget*, Chicago Council of Social Agencies, *Bulletin No. 5* (1925), see Appendix A, above, p. 132.

of the diets ranked above standard (Chicago Budget) in total expenditure for food, and 35 fell below. Of the former group, 10 diets, and of the latter group, 12 diets fell within a range of 20 per cent above or below standard.

ADEQUACY OF DIETS

In relation to accepted dietary standards, the 54 family diets ranked as follows: calories, 37 below, 17 above standard; protein, 17 below, 37 above standard; calcium, 50 below, 4 above standard; phosphorus, 41 below, 13 above standard; iron, 41 below, 13 above standard.

Considering the diets as a whole, only 2 were adequate in all essentials; 4 diets were adequate in all factors except calcium; 1, in all except calories; 31 were inadequate in two to four essentials; and 16 were inadequate in all five factors.

Barring calcium because of its almost uniform deficiency in the diets, and considering adequate any factors as much as 10 per cent below standard, 13 diets were adequate; 3 were adequate in all factors except calories; 3 were adequate in all except phosphorus; 1 was adequate in all except iron; 23 were inadequate in two or three essentials; and 11 were inadequate in all essentials.

ADEQUACY OF DIET IN RELATION TO COST

Diets adequate, or approximately so, in all essentials, with the exception of calcium, were secured by 3 families who spent a standard (approximately) amount for food; by 3 families (except for calcium) ranking 6, 12, and 14 per cent, respectively, below standard in cost; by 7 families (calcium excepted in 3 cases) who spent an amount far above standard for food.

There is only a slight possibility then, it appears, of maintaining an adequate diet at a cost below the Chicago Budget standard. The chances of securing an adequate diet are much greater if expenditure is standard or above, for in such a case some allowance is made for faulty selection of individual foods, a factor which must always be considered. (The lack of calcium in the diets is not to be ignored, but is treated here as a matter due largely to faulty division of the food fund—a fact which is, in turn, due to ignorance of food values.)

The relationship between cost and the diet is clearly shown. The two diets adequate in all essentials were above standard in expenditure for food. Of the 16 diets inadequate in all essentials, 15 were below standard in food expenditure.

There is also a direct relationship between total cost of diet and the return in separate dietary factors. Among the diets above standard in cost, there is a greater proportion of diets above standard in each of the dietary essentials.

As to protein, the relationship to cost is clearly shown. Protein is almost always insufficient in quantity in the lowest-cost diets and is practically always present in abundance in the high-cost group.

As to calories, the relationship to cost is only fairly well defined, for some diets farthest below in cost and some highest above standard in cost are insufficient in calories.

As to minerals, it is difficult to see the relationship to cost because they are almost uniformly low in the diets. However, this relationship cannot be absolutely denied since the majority of diets above standard in minerals are also above in cost.

DIVISION OF FOOD FUND

Compared with the Sherman Budget division, the 54 families spent approximately the correct proportion for sugars and fats; one-half more than is desirable for meat, fish, and eggs; somewhat more than they should for grain products; and less than one-half of what they should for milk.

The variation from standard in total amount spent for food did not appear to affect the proportions spent for specified types of food. The only notable variation was an increase in percentage spent for fruits and vegetables among the group which spent considerably more than the required amount for food.

SELECTION OF FOODS

1. BY ALL OF THE FIFTY-FOUR FAMILIES CONSIDERED AS A GROUP

The meats selected were frequently the prepared varieties, such as boiled ham and the more expensive cuts of fresh meat. Fish was used little, and usually the canned variety. Eggs were used in quantity by some families and practically omitted from the diet by other families.

Milk was not used in sufficient quantities. Only 4 families secured enough calcium, which directly reflects the amount of milk consumed. In most cases the milk supply should have been doubled.

Cereal grains were used extensively but mainly in the form of white bread and, in some families, in quantities of fancy bread and cakes. The selection of more dark breads and whole grain breakfast foods would have improved the quality of the diets.

Fruits and vegetables out of season were used a great deal.

Cheap fresh fruits, dried fruits, and the less expensive leafy vegetables in season would have been wisely chosen.

The selection of sweets and fats varied considerably according to the individual diets.

2. AS RELATED TO VARIATION FROM STANDARD IN FOOD EXPENDITURE

On the whole, the lowest-cost group showed a tendency to select the less expensive cuts of meat, the plain loaf bread, and the cheaper green vegetables. However, there was almost a total lack of fruits in these diets.

The standard and above-standard groups more uniformly chose the prepared meats and high-priced cuts of meat; much fancy bread and cake, and fruits and vegetables out of season.

CONCLUSIONS

1. Two-thirds of the diets cost less than would have been allowed for the same families by the Chicago Standard Budget.

2. The diets, as a whole, were inadequate, particularly in foods yielding minerals and vitamins.

3. As the cost of the diets increased, the adequacy of the diets tended also to increase.

4. The Chicago Standard Budget for food expenditure is adequate to cover the needs of the diet if proper division is made of the food fund and if wise selection is made of individual foods.

5. The proportional division of the food fund among nine principal groups of foods was similar in the 54 families, regardless of variation from standard in cost. Too much was spent for meat and cereal grains, and not enough for milk.

6. The selection of foods was rather generally unwise, particularly in choice of expensive cuts of meat, highly-milled cereal grains, and out-of-season fruits and vegetables.

SUPPLEMENT A

STANDARD REQUIREMENT AND ACTUAL CONSUMPTION OF FOOD COMPUTED FOR ONE FAMILY FOR ONE DAY

FAMILY M4	AGE YRS.	AMOUNT OF SPECIFIED FACTORS ACCORDING TO SPECIFIED STANDARDS								
		Number of Calories		Protein in Grams		Calcium in Grams	Phosphorus in Grams	Iron in Grams		Expenditure
		Holt	Gillett	Sherman-Holt	Sherman-Gillett	Sherman-Hawley	Sherman-Rose	Sherman-Holt	Sherman-Gillett	Chicago Standard Budget
Father	29	3,600	3,600	75	75	.68	1.37	.0150	.0150	$0.43
Mother	26	2,800	2,800	60	60	.54	1.10	.0150	.0150	.34
Girl	4	1,300	1,290	33	32	1.00	1.00	.0065	.0065	.27
Boy	2	1,135	1,150	28	29	1.00	1.00	.0057	.0058	.27
Boy	1	950	1,050	24	26	1.00	1.00	.0048	.0053	.27
Total requirement		9,785	9,890	220	222	4.22	5.47	.0470	.0476	$1.58
Actual average daily consumption		7,842		290		2.86	4.49	.0427		$1.47

SUPPLEMENT B

Sample of Food Record Kept by One Family for One Week

Article	Quantity	Amount
June 18, 1925		
Short steak	¾ lb.	$0.28
Pork and beans	1 can, 1 lb. 2 oz.	.12
White bread	1 loaf, 1 lb.	.11
Salami	½ lb.	.25
Tomatoes	2 small, ½ lb.	.10
Sugar	2 lb.	.15
Bread	1 lb. loaf	.12
Cherries	1 lb.	.35
Oranges	½ doz.	.30
June 19, 1925		
Eggs	1 doz.	.39
Sandwich bread	1 loaf, 1½ lb.	.15
Milk	1 qt.	.14
Plums	3 lb.	.25
June 20, 1925		
Plums	1 can, 1 lb. 6 oz.	.20
Salmon	1 can, 14 oz.	.20
Vinegar	1 qt.	.05
Hamburger	1 lb.	.25
Crackers	1 box	.10
Sweet cream	1 small	.16
Bread	1 loaf, 1½ lb.	.15
Plums	1 box, 5 lb.	.40
Bananas	1 doz.	.25
June 21, 1925		
Pork shoulder	1½ lb.	.39
Pickles, home-made	2 small jars, 1¼ lb.	.25
Frankfurters	1 lb.	.22
Pickled pigs feet	1 pint jar	.25
Cake	1 small	.12
Mustard	1 small jar	.10

SUPPLEMENT B—*Continued*

Article	Quantity	Amount
June 22, 1925		
Head cheese	¼ lb.	$0.07
Pickles	1 small	.05
Biscuits	1 doz.	.20
Bread	1 loaf, 1½ lb.	.12
Hamburger	1 lb.	.25
Cucumbers	2 small	.05
Sour cream	½ pt.	.16
June 23, 1925		
Beef stew	1 lb.	.18
Sugar	2 lb.	.15
Powdered sugar	1 lb.	.13
Boiled ham	¼ lb.	.15
Tea	¼ lb.	.10
Biscuits	½ doz.	.10
June 24, 1925		
Hearts	2½ lb.	.25
Pork shoulder	1 lb.	.28
Pork and beans	1 can	.10
Spaghetti	1 box, 8 oz.	.10
Cake	1	.12
Veal sausage	¼ lb.	.07
Tomatoes	¾ lb.	.12

SUPPLEMENT C

Percentage Relationship between Actual Diet and Recognized Standard as to Cost and Dietary Factors for Each of 54 Families

Classification	Family Number	Percentage Which Actual Diet Forms of Standard for Specified Dietary Factors					
		Cost	Calories	Protein	Calcium	Phosphorus	Iron
Group A (41–65 per cent below standard in expenditure for food)	J36	35	93	68	17	48	45
	A129	37	102	98	39	76	69
	J6	41	64	77	29	52	42
	C6	47	63	81	20	40	52
	D2	52	49	195	62	50	41
	J39	56	41	58	27	43	42
	K18	57	52	90	56	67	50
	A66	58	53	54	51	46	38
	M19	59	59	92	42	75	68
Group B (21–40 per cent below standard in expenditure for food)	J37	64	127	125	68	63	113
	J68	65	97	101	34	57	70
	A54	67	49	80	36	53	55
	A7	69	49	70	37	49	57
	J87	69	58	104	25	57	81
	A38	70	63	86	16	47	69
	C12	72	60	86	36	60	64
	J99	72	78	113	51	74	70
	A95	74	107	114	20	62	60
	A94	74	93	133	74	91	70
	A61	74	142	78	31	61	50
	L10	75	57	81	42	58	48
	A39	76	78	98	37	68	70
	A158	78	113	125	42	76	107
Group C (0–20 per cent below standard in expenditure for food)	A87	80	69	107	41	70	81
	A63	80	95	116	33	83	91
	A1	83	91	119	47	76	71
	J11	84	81	111	37	62	108
	A140	86	109	196	75	108	126
	A27	87	57	79	29	56	67
	L9	88	87	103	41	73	71
	A36	88	119	100	51	107	97
	A20	90	80	99	41	67	75
	AM6	94	159	138	78	105	94
	A67	94	86	121	53	92	91
	M4	95	79	131	68	82	90

SUPPLEMENT C—*Continued*

Classification	Family Number	Percentage Which Actual Diet Forms of Standard for Specified Dietary Factors					
		Cost	Calories	Protein	Calcium	Phosphorus	Iron
Group D (0–20 per cent above standard in expenditure for food)	M23	102	96	279	58	90	93
	M36	104	79	111	58	73	76
	G33	104	93	131	90	85	71
	A124	105	129	155	95	104	106
	C17	109	85	130	115	93	76
	A58	110	71	149	54	102	102
	D10	111	161	123	45	75	81
	J61	113	72	141	39	81	109
	L3	114	110	159	55	101	93
	A43	115	116	124	46	62	58
Group E (21–40 per cent above standard in expenditure for food)	J65	122	111	162	53	96	121
	L17	124	89	138	59	105	97
	J83	129	77	89	54	72	69
	A28	132	135	105	77	103	101
Group F (41 or more per cent above standard in expenditure for food)	A55	145	94	165	108	143	128
	A182	150	94	143	97	104	95
	A156	156	119	241	104	129	137
	J3	163	123	196	43	115	280
	G24	171	160	257	119	187	139

SUPPLEMENT D

THE PER CENT DISTRIBUTION OF THE FOOD FUND AMONG SPECIFIED GROUPS OF FOODS FOR EACH OF 54 FAMILIES

CLASSIFICATION	FAMILY NUMBER	PER CENT DISTRIBUTION OF THE FOOD FUND								
		Fats	Fat Meats	Milk	Meat, Fish, Eggs	Cheese, Cream, Chocolate	Sugar, Starch, Syrup	Cereals	Bread	Vegetables, Fruits
Group A (41–60 per cent below standard in expenditure)	J36	13.2	12.7	4.1	38.4	4.9	1.6	8.5	2.2	14.4
	A129	14.4	2.5	13.6	29.8	5.5	3.5	12.5	2.5	15.7
	J6	15.5	9.6	8.7	31.2	6.3	5.3	10.4	3.6	9.4
	C6	8.4	2.7	6.7	35.2	4.7	5.6	9.6	7.7	19.4
	D2	5.6	.....	26.7	18.2	12.9	4.4	9.6	9.5	13.1
	J39	7.7	7.5	4.4	39.0	8.5	2.9	3.1	3.3	18.6
	K18	3.3	.....	13.0	27.1	15.2	2.7	1.0	23.3	14.4
	A66	12.3	4.7	10.0	16.9	17.6	4.8	5.9	4.6	23.2
	M19	2.2	.....	10.5	36.1	8.4	5.6	10.0	3.2	24.0
Group B (21–40 per cent below standard in expenditure)	J37	9.6	9.6	12.2	23.6	3.0	5.4	15.0	9.1	12.5
	J68	14.3	6.3	8.6	21.1	1.4	9.2	13.2	.....	25.9
	A54	1.1	0.9	8.5	35.2	3.7	8.5	1.9	20.0	20.0
	A7	9.8	2.2	11.9	32.8	11.9	.....	2.3	11.7	17.4
	J87	9.2	3.3	9.4	42.9	0.6	.....	3.5	2.7	23.4
	A38	17.3	0.6	.....	31.5	4.0	2.4	1.3	22.6	20.3
	C12	8.2	.....	9.4	22.7	3.8	7.0	1.8	20.0	27.1
	J99	8.1	.....	13.8	20.0	2.3	4.1	8.9	34.0	8.8
	A95	15.8	8.1	9.1	25.8	6.0	9.3	11.6	3.2	11.1
	A94	14.7	7.1	15.0	25.2	4.3	4.6	1.2	20.8	7.1
	A61	5.2	.....	7.0	32.8	6.3	3.5	6.0	14.1	25.1
	L10	8.5	.....	18.3	16.5	17.0	1.9	6.3	17.2	14.3
	A39	8.5	3.5	6.0	30.9	8.1	6.0	12.4	4.5	20.1
	A158	2.8	0.3	4.5	28.8	6.9	9.8	1.9	23.6	21.4

SUPPLEMENT D—*Continued*

Classification	Family Number	Per Cent Distribution of the Food Fund								
		Fats	Fat Meats	Milk	Meat, Fish, Eggs	Cheese, Cream, Chocolate	Sugar, Starch, Syrup	Cereals	Bread	Vegetables, Fruits
Group C (0–20 per cent below standard in expenditure)	A87	5.0	6.8	7.2	30.0	8.1	2.5	1.6	25.1	13.7
	A63	11.0	17.3	6.4	38.2	2.6	5.1	6.9	2.8	9.7
	A1	6.6	4.6	9.5	38.4	4.2	6.2	7.5	5.6	7.4
	J11	12.7	7.7	9.7	23.6	16.4	3.2	5.4	5.8	15.5
	A140	0.5	1.2	15.8	30.6	3.2	0.5	3.3	28.7	16.2
	A27	4.8	4.0	7.5	18.2	17.0	1.8	2.1	27.8	16.8
	L9	11.8	2.4	6.8	27.1	11.5	2.7	4.0	20.0	13.7
	A36	10.7	0.5	5.1	35.0	10.0	7.0	10.2	2.5	19.0
	A20	10.2	2.5	6.9	23.0	12.1	5.2	5.5	16.4	18.2
	AM6	13.7	2.0	13.4	22.1	5.3	4.0	7.8	13.3	18.4
	A67	2.8	1.6	6.9	38.0	13.4	7.1	5.8	12.9	11.5
	M4	7.4	5.2	15.5	21.8	8.4	3.1	4.7	12.7	21.2
Group D (0–20 per cent above standard in expenditure)	M23	9.6	0.5	12.3	31.1	4.3	3.2	4.3	18.7	16.0
	M36	7.7	0.5	14.1	25.1	7.5	6.1	1.6	20.2	17.2
	G33	5.4	0.5	24.4	25.6	6.0	5.6	3.0	16.8	12.7
	A124	7.6	2.5	21.2	21.0	5.7	7.8	7.3	7.0	19.9
	C17	6.2	1.7	15.9	21.9	11.8	3.0	1.4	23.2	14.9
	A58	4.3	8.6	7.1	34.8	9.3	2.5	0.8	20.0	12.6
	D10	15.3	1.0	5.9	29.9	8.5	12.3	7.6	3.5	16.0
	J61	4.7	8.9	9.7	32.2	2.6	0.5	1.2	18.2	22.0
	L3	6.7	1.6	4.5	26.2	10.4	5.9	2.0	32.6	10.1
	A43	11.3	0.3	11.5	22.0	18.1	4.6	3.3	9.8	19.1
Group E (21–40 per cent above standard in expenditure)	J65	7.0	4.9	7.7	27.9	20.1	0.1	4.7	9.4	18.2
	L17	6.8	3.6	8.0	32.0	4.0	1.2	2.0	26.8	15.6
	J83	12.0	.....	13.0	27.4	7.9	1.9	0.8	17.5	19.5
	A28	9.6	4.9	12.0	35.8	4.9	4.0	9.0	5.4	14.4
Group F (40 per cent or more above standard in expenditure)	A55	2.1	6.6	13.8	26.7	6.5	1.8	2.8	19.6	20.1
	A182	4.6	.....	17.8	32.5	2.9	2.6	1.0	21.7	16.9
	A156	7.6	3.2	16.5	23.6	6.2	3.5	3.7	14.0	21.7
	J3	3.6	9.7	1.1	20.6	9.1	1.5	1.3	11.6	41.5
	G24	4.8	.....	12.7	26.9	4.0	2.2	16.8	4.8	27.8

APPENDIX E

STUDIES OF INDIVIDUAL FAMILIES

GROUP I.[1] FAMILIES SPENDING WITHIN 10 PER CENT OF THE AMOUNT REQUIRED BY THE CHICAGO STANDARD BUDGET

1. FAMILY A20 (−10 PER CENT)

This colored family is made up of father, mother, and two sons aged seven and six years. They lived in the South until the World War when they moved to Chicago. The father was reared in a white family, and the mother lived on a farm in Georgia. The father has steady work, and the mother assists with the income by doing day work. The total yearly family fund is $1,867. With two roomers, making a total of six persons, this family lives in four rooms. The house is equipped with a bathroom, two stoves, and gas. The rooms are well furnished, including two double beds and a davenport.

Dietary factors.—The family's expenditure for food is near standard according to the Chicago Budget (−10 per cent). The return in dietary factors, judged by the Sherman-Gillett standards, is as follows: calories, −20 per cent; protein, −1 per cent; calcium, −59 per cent; phosphorus, −33 per cent; iron, −25 per cent. This shows that all essentials, except protein, are much below standard.

Comparing the percentage of total expenditure with that of the Sherman Budget division, it is found that the family divides its food fund as follows: it spends approximately what it should for fats and meat, fruits and vegetables; one-fourth of what it should for milk; and one-half more than it should for grain products.

Examination of the daily diet record for one month shows that this family of four purchased only 10 quarts of whole milk during the month, 1 quart of buttermilk, and 3 pounds of condensed milk. The items of expenditure for meat proved to be mainly for pork chops at 30 cents per pound. Less expensive cuts would have brought a greater return in dietary essentials for money expended. The excessive expenditure for cereal grains proved to be largely for breadstuffs in the form of frosted cakes, almost a daily item on the diet record. No whole-grain breakfast cereals or dark breads were purchased during the month. The canned fruits were used almost exclusively. The vegetables were, with few exceptions, canned or of the root

[1] See above, p. 170, n. 1, for statement concerning the selection and grouping of these families.

variety. An adjustment of the excessive expenditures to the milk fund, a selection of cheaper cuts of meat, of whole-grain cereals in place of cakes, and of some green vegetables, would increase the calories, give more of a desirable kind of protein for growing children, and bring the calcium, phosphorus, and iron to standard.

2. Family A67 (−6 Per Cent)

This colored family consists of father, mother, and three children—a boy of thirteen, and girls of twelve and ten years. This family of five, with three men roomers (one also a boarder), lives in five rooms. The house is equipped with a bathroom, one stove, a furnace, and gas plate. Five double beds are used by the group. The house is shabbily furnished and is very much overcrowded. The mother does day work, and the boy of thirteen peddles on the street after school hours. Their earnings, together with those of the father, made the total yearly family fund $2,052.

Dietary factors.—The family's expenditure for food is practically standard according to the Chicago Budget (−6 per cent). The return in dietary factors, judged by the Sherman-Gillett standards, is as follows: calories, −14 per cent; protein, +21 per cent; calcium, −47 per cent; phosphorus, −8 per cent; iron, −9 per cent.

Comparing the percentage of expenditure for specified foods with that of the Sherman Budget division, it is found that the family spends less than one-half the correct proportion for fats and milk; approximately twice what it should for meat, eggs, and fish, and for grain products (mainly bread); and slightly more than it should for fruits and vegetables.

If the amount spent for easily digested fats were increased and if the amount spent for meat and bread were cut in half, the excess might well be spent on milk and fats (mainly milk). This would increase the calories and the amount of calcium, and the protein would be decreased and changed to a kind more desirable for a growing family. The increased milk supply, if raised to required amount, would probably bring the phosphorus to standard. Iron was low, chiefly due to the fact that the green, leafy vegetables were not used generously in the diet, most of the allowance being spent on the roots, tubers, and seeds.

3. Family Am6 (−6 Per Cent)

A father and mother of Dutch parentage have five children—two girls aged fourteen and one, and three boys aged thirteen, ten, and seven. The father and mother, of the merchant class in Holland, immigrated with the two older children. After moving about from

one farm to another in the West, they came to Chicago in 1922. The children attend a Dutch private school. The family lives in an old, four-room damp cottage below street level. The furniture is in good condition. They have three double beds and a davenport. A private toilet is the only modern convenience of the house. The mother has preserved inexpensive but, to them, valuable old plates from Holland. The family fund, which was $1,621 for one year, was supplied by the father's earnings, with the exception of $45 earned by the oldest boy last summer when he worked on a farm for six weeks.

Health.—The mother reports that the father is not strong, a fact which makes it impossible for him to do heavy work. The mother and children appear to be healthy.

Dietary factors.—The family's expenditure for food is practically standard (−6 per cent) according to the Chicago Budget. The return in dietary factors, judged by the Sherman-Gillett standards, is as follows: calories, +59 per cent; protein, +38 per cent; calcium, −22 per cent: phosphorus, +5 per cent; iron, −6 per cent. This shows that the only factor alarmingly below standard is calcium.

When the family's percentage of expenditure for specified foods is compared with the Sherman Budget division, it is found that the apportionment of its food fund is as follows: for fats and cereal grains, one-half in excess of the allotted amount; for milk, one-half of the amount designated as needed; for meat, slightly more than the maximum stated as desirable; for fruits and vegetables, approximately a correct amount.

Examination of the daily diet reveals the fact that the family purchased 9 pounds of lard, 14 pounds of butter, 4 pounds of butter substitute, 5 pounds of bacon and sausage, 14 pounds of fresh pork, 36 pounds of sugar and syrup, and 70 pounds of bread. This explains the excessive return in calories. The use of 19 dozen eggs, 12 pounds of beef and fish, 43 quarts of whole milk, 36 pounds of condensed milk, together with the protein yielded by bread and cereals, explains the excess of protein.

Had less fat been purchased and the whole-grain breakfast cereal been substituted, in part, for the prepared variety, the amount of money saved could have been applied to the purchase of milk to raise the calcium intake. Such an adjustment also would have reduced the calories and increased the iron supplied by the food. The selection of fruits and vegetables was, for the most part, good. Raisins and prunes were purchased often; and fresh spinach, cabbage, and lettuce appeared frequently on the diet list.

4. Family M4 (−5 Per Cent)

This is a Polish family consisting of father, mother, and three children—a girl four years old; two boys, aged two and one. The family owns a four-room home which has a private toilet, electricity, three stoves, and bath. The house is comfortably furnished and has one single and two double beds. The children have a back yard for play. The family keeps chickens, which contribute to the food supply. The sum of $1,256.81, which represents the family fund for one year, was supplied entirely by the father's earnings.

Health.—The youngest boy is under the doctor's care; his legs are thin, and he has not yet walked.

Dietary factors.—The family's expenditure for food is 5 per cent below standard when compared with the Chicago Budget. The return in dietary factors, judged by the Sherman-Gillett standards,[1] is as follows: calories, −21 per cent; protein, +31 per cent; calcium, −32 per cent; phosphorus, −18 per cent; iron, −10 per cent.

When the family's percentage distribution of the food fund is compared with the Sherman Budget division, it is found that the apportionment of its food fund is as follows: for fats, approximately a correct amount; for milk, one-half the designated proportion; for meat, slightly in excess of the allotted amount; for cereal grains and fruits and vegetables, approximately one-third more than is needed for these articles of food.

Examination of the daily diet record for one month reveals the fact that, although the family devoted a correct percentage of the food fund to fats, it received a low return in calories because of the high price paid for the fats. For instance, butter was purchased in ¼-pound lots, making the rate per pound unusually high during the season when butter is comparatively cheap. Bacon was also purchased in small quantities so that the rate per pound was 50 cents. High protein in the diet may be accounted for by the fact that the family used 7½ dozen eggs; 5 pounds of cheese; 22 pounds of beef, poultry, and fish; and about 65 quarts of milk during the month. Phosphorus, which is low in this diet and which is furnished in fairly large amounts by the above foods, might have been adequately supplied had some whole grain cereals been added to the diet, instead of having a predominance of the highly-milled varieties. An average of 2 quarts of milk were purchased daily by the family of five. Shortage of milk and almost total lack of other calcium-supplying foods resulted in a 32 per cent deficiency in this essential.

[1] See Table I of Appendix D, p. 151.

A list of the fruits purchased shows expenditure for oranges, watermelon, grapes, pears, and cherries, all expensive in July. Some root vegetables were purchased, but cabbage in the form of sauerkraut was practically the only leafy vegetable used. Iron was only 10 per cent below standard, probably because of the plentiful supply of egg yolks in the diet.

Little plain bread was purchased, but much money was expended for fancy cakes, doughnuts, and pies, thus accounting for the excess expended on cereal grains. By the use of whole-grain cereals, a wise choice of leafy vegetables, more careful purchase of suitable fats, and by applying the saving from these purchases to at least another quart of milk per day, the diet might have been balanced to fill the needs of this family.

5. Family M23 (+2 Per Cent)

This is a Polish family consisting of father, mother, and three daughters aged ten, eight, and six years. The family occupies four rooms which are equipped with private toilet, gas, electricity, two stoves, a sewing machine, and two double beds. Mother and children are well dressed, and the clothing is in good condition. From the father's earnings a family fund of $1,521 is supplied.

Health.—The ten-year-old girl is 10 pounds under weight.

Dietary factors.—The family's expenditure for food is practically standard according to the Chicago Budget (+2 per cent). The return in dietary factors, judged by the Sherman-Gillett standards, is as follows: calories, −4 per cent; protein, +179 per cent; calcium, −42 per cent; phosphorus, −10 per cent; iron, −7 per cent.

When the family's expenditure for specified foods is compared with the Sherman Budget division, it is found that the apportionment of its food fund is as follows: for fats and fruits and vegetables, approximately a correct proportion; for milk, one-half the designated figure; for meat, fish, and eggs, and cereal grains (mainly bread), approximately twice the proportion allotted for those foods.

Examination of the daily diet record shows that the extremely high protein is due to the purchase of 23 pounds of beef, 7 pounds of veal, 7 pounds of beans, and 11 dozen eggs during the month. The protein from 100 pounds of bread and from 42 quarts of milk aided materially in bringing this factor far above the protein standard. If the amount spent upon meat had been cut in two and the surplus spent upon milk, the calcium would have been adequate, the phosphorus would have been raised, and the excessively high protein cut down. At the same time, a more desirable kind of protein for growing

children would have been introduced into the diet. The selection of fruits and vegetables was fairly desirable. Had less money been spent for white bread and some money spent for whole grain cereals, both the iron and the phosphorus would have been increased in this diet.

6. Family M36 (+4 Per Cent)

This German family, consisting of father, mother, and two sons aged five and two years, is paying for a four-room house. The house is equipped with two stoves, gas, electricity, two double beds, and bathroom. The rooms are airy, light, and comfortable; and the furniture is adequate. The family fund for one year, $1,442, was supplied from the father's earnings, with the exception of $9.00 earned by the mother.

Health.—There is no indication of ill health; the children play out of doors a great deal.

Dietary factors.—The family's expenditure for food is only slightly above standard according to the Chicago Budget (+4 per cent). The return in dietary factors, judged by the Sherman-Gillett standards, is as follows: calories, −21 per cent; protein, +11 per cent; calcium, −42 per cent; phosphorus, −27 per cent; iron, −24 per cent. This shows the family to be dangerously below in all dietary essentials with the exception of protein.

Comparing the percentage of expenditure for specified foods with that of the Sherman Budget division, it is found that the family expends a little less than the correct proportion for fats; about one-half what it should for milk; one-third more than it should for meat; almost twice what it should for grain products (mainly bread), and approximately the correct proportion for fruits and vegetables.

Examination of the daily diet record shows that the family purchased only 35 quarts of milk during the month and 61 pounds of bread. If a little more easily digested fat were introduced into the diet, and more milk purchased from the excess now spent on bread and meat, the protein would be somewhat reduced and would be of a highly desirable kind, the calcium would be greatly increased, and the amount of phosphorus would probably be brought to standard. Few green vegetables were purchased, which accounts for the lack of iron in the diet. Money for vegetables was expended largely for root vegetables and potatoes.

7. Family A124 (+5 Per Cent)

A colored family, consisting of father, mother, and two children, moved to Chicago from Georgia in 1920. The mother attended coun-

try school in the South. Her parents were educated above the average for negroes in that district. The children are a boy aged two years and a girl of four years.

The family has lived at the present address for five years. The house consists of six rooms which are dark, but is equipped comfortably with bathroom, gas, electricity, and two stoves. There are two double beds and one single; all of the furniture is in good condition; and the house is neat. The children are given good care. The family fund of $1,307 for one year was supplied by the father's earnings, with the exception of $30 earned by the mother.

Health.—The boy (two years old) is small for his age. The Infant Welfare Clinic recommends cod-liver oil and vegetables.

Dietary factors.—The family's total expenditure for food is practically standard according to the Chicago Budget (+5 per cent). The return in dietary factors, judged by the Sherman-Gillett standards, is as follows: calories, +29 per cent; protein, +55 per cent; calcium, −5 per cent; phosphorus, +4 per cent; iron, +6 per cent.

Comparing the percentage of expenditure for specified foods with that of the Sherman Budget division, it is found that the family makes an approximately proper division of the total amount expended for food. The percentage spent for milk is slightly below minimum standard, and the percentage spent for meat is slightly below maximum.

Examination of the daily diet record shows that 41½ pounds of meat were purchased during the month. More than one-half of this amount was lean meat. This high meat consumption for a family of four caused a great excess of protein. The consumption of milk raised the protein intake to 55 per cent above standard. Fifty-one quarts of whole milk, 4 quarts of buttermilk, and 6 pounds of condensed milk were purchased by the family during the month. The resulting average was approximately 2 quarts of milk per day. The fact that the calcium intake is 5 per cent below standard and the expenditure for milk a trifle low suggests the advisability of increasing the expenditure for milk. A desirable adjustment in expenditure would shift a slight excess of expenditure for meat to milk, which would, at the same time, reduce the protein and increase the calcium intake in the family's diet.

The caloric return to this family's diet was high (29 per cent). This is probably due to the fact that the total consumption of fat meat was approximately 20 pounds. In addition, this family of four consumed 33 pounds of bread, 36 pounds of potatoes, and 35 pounds of sugar and syrup during the month.

The return in phosphorus (+4 per cent) was due to the fact that the diet was rich in lean meat and milk. The nearly standard supply of iron was due to the amount and kind of vegetables consumed. Twenty-three pounds of vegetables and 43 pounds of fruit were purchased by the family during the month. The proportion of expenditure for fruits and vegetables was correct according to Sherman's standard. Fruits purchased consisted mainly of apples with some prunes and bananas. Many of the vegetables purchased were of the less expensive kinds, such as cabbage, turnips, onions, and carrots.

GROUP II. STUDIES OF INDIVIDUAL FAMILIES 10 TO 71 PER CENT ABOVE STANDARD IN FOOD EXPENDITURE

8. FAMILY L3 (14 PER CENT ABOVE THE CHICAGO STANDARD BUDGET)

This family consists of a father of German and a mother of Russian extraction, and five children, all boys, aged seventeen, fifteen, thirteen, eight, and five years. The family of seven lives in four rooms. The house has a private toilet, two stoves, and three double beds. The rooms are crowded with furniture and are in a general condition of disorder. The family fund of $1,825 for one year was derived from the earnings of the father and oldest son and from previous savings of the family.

Health.—Two of the boys (aged eight and thirteen years) were at home when the investigator called. They looked pale and thin.

Dietary factors.—The family's expenditure for food is above standard according to the Chicago Budget (+14 per cent). The return in dietary factors, judged by the Sherman-Gillett standards, is as follows: calories, +10 per cent; protein, +59 per cent; calcium, −45 per cent; phosphorus, +1 per cent; iron, −7 per cent.

Comparing the percentage of expenditure for specified foods with that of the Sherman Budget division, it is found that the apportionment of the food fund is as follows: slightly less than the proportion designated for fats and fruits and vegetables; one-half more for meat; and three times as much for cereal grains; one-sixth of the proportion allotted for milk.

Examination of the daily diet record for one month reveals the fact that 2 quarts of whole milk and 30 pounds of condensed milk were purchased during the month, while 21 pounds of flour and 182 pounds of bread were bought. If the amount spent for bread were reduced to approximately standard and the amount in excess applied to the purchase of fresh whole milk, fruits, and vegetables, undoubtedly the calories and protein would be reduced to standard and the calcium and iron increased to an adequate amount.

9. Family A28 (+32 Per Cent)

This colored family consists of father, mother, and two children —a boy of five and a girl of three years. They live in three rooms. They have a private bathroom and two stoves. The furniture is in good condition, and they have one single and two double beds. The family fund for one year was $2,408. This was supplied by the combined earnings of the father and the mother, who does day work.

Dietary factors.—The family's expenditure for food is considerably above standard according to the Chicago Budget (+32 per cent). The return in dietary factors, judged by the Sherman-Gillett standards, is as follows: calories, +35 per cent; protein, +5 per cent; calcium, −23 per cent; phosphorus, +3 per cent; iron, +17 per cent. This shows only calcium below the Sherman standard.

Comparing the percentage of expenditure for specified foods with that of the Sherman Budget division, it is found that the family spends approximately one-third more than the correct proportion for fats; about one-half what it should for milk; about twice what it should for meat; approximately what it should for grain products; and only slightly less than it should for fruits and vegetables.

Examination of the diet record reveals the fact that the family buys about 31 quarts of whole milk and 14 quarts of buttermilk. By cutting down on the purchase of fats and fat meats (10 pounds of lard and 30 pounds of pork were bought), the surplus calories might be reduced; and by adding more whole milk, the calcium could be brought to standard and the protein improved in quality. Investigation of the distribution of expenditure for vegetables showed the frequent purchase of cabbage, lettuce, string beans, and okra, which circumstance undoubtedly brought the iron content of the diet up to standard.

10. Family A55 (+45 Per Cent)

A father and mother with four boys make up this Polish family. The ages of the boys are sixteen, thirteen, ten years, and ten months. This family of six persons lives under rather crowded conditions in four rooms. They have one double bed, two single beds, and a crib. There are two stoves in the house, and the house is lighted with electricity. A family fund of $1,730 is provided by the father and the sixteen-year-old son.

Dietary factors.—The family's total expenditure for food is very much above standard (+45 per cent) according to the Chicago Budget. The return in dietary factors, when judged by the Sherman-

Gillett standards, is as follows: calories, −6 per cent; protein, +65 per cent; calcium, +8 per cent; phosphorus, +43 per cent; iron, +28 per cent.

A comparison of the percentage expenditure for specified foods with that of the Sherman Budget division, shows that the family spends about two-thirds of what it should for fats; one-half of what it should for milk; almost twice what it should for meat and cereal products; and slightly above what it should for fruits and vegetables. It must be borne in mind that these are only the relative proportions spent for certain foods. The absolute amount spent for the entire diet was 65 per cent more than it should be, when compared with the Chicago Standard Budget.

The daily diet record shows that 65 quarts of whole milk and 15 pounds of condensed milk were purchased by the family in one month. Roughly, this averages about 3 quarts of milk per day used by this family of six. This rather generous use of milk explains why the calcium intake is slightly above the Sherman-Hawley standard. The fact that the calcium return is standard when the percentage of total money expended for milk is low may be explained by calling attention to the fact that the total expenditure for food is much above standard. The high protein and phosphorus content of the family dietary may be due to the fact that much milk and lean meat were purchased. The low calorie return in the diet may be attributed to the comparatively low expenditure for fats and fat meats. The high iron content of the diet is due to the prevalence of green vegetables in the diet.

Study of the items of food purchased shows that the extremely high expenditure for food is due to the types of food selected. In many cases the meats purchased were of the prepared and preserved kinds, such as boiled and minced ham. The fruits selected, in the majority of cases, were bananas, apples, and oranges, out of season in July. Vegetables selected were those which are not considered the most economical to buy in July—cucumbers, fresh tomatoes, and celery. Much less might have been spent on vegetables with equally desirable return in iron if a wise choice had been made. Cereal grains ran high in expenditure. The fact that this did not contribute high caloric return in proportion to expenditure is self-explanatory. The diet list shows that the family bought little plain bread, while it spent much money on pastry, cakes, sweet rolls, and cream puffs.

A glance at the results of this family's expenditures shows that when total output for food runs extremely high, dietary essentials

increase also. However, the outlay for expensive meats, fancy breads, fruits, and vegetables out of season is not justified. An adequate diet may be secured for less money if foods are wisely selected.

11. Family A182 (+50 Per Cent)

This Polish family consists of father, mother, and three children —boys of eleven and eight, and a girl of two years. The family of five persons lives in five rooms. The house has a bathroom, and there is one stove with a gas combination. The home is furnished comfortably and the family is dressed well. The family uses one double and one single bed. The family fund of $2,574 is provided in part by the father's earnings and in part by rental from a three-family brick house which they are buying.

Dietary factors.—The family's total expenditure for food is very high above standard (+50 per cent) according to the Chicago Budget. The return in dietary factors, when judged by the Sherman-Gillett standards,[1] is as follows: calories, −6 per cent; protein, +43 per cent; calcium, −3 per cent; phosphorus, +4 per cent; iron, −5 per cent.

A comparison of the percentage distribution of expenditure for specified foods with that of the Sherman Budget division, shows that the family spends about one-third of what it should for fats; two-thirds of what it should for milk; almost twice what it should for meat; one-half more than it should for grain products; and approximately the correct amount for vegetables and fruits. It must be borne in mind that this family is spending about 50 per cent more than it needs for food according to the Chicago Standard Budget. A variation in percentage of expenditure for a group of foods below the Sherman standard does not necessarily indicate a low absolute expenditure for that item. On the other hand, since the total amount of money spent is relatively high, any expenditure above Sherman's standard means an extremely high actual outlay of money.

Examination of the daily diet record shows that this family of five used 6 pounds of butter, ½ pound of lard, and ½ pound of sausage during the month. This accounts for the fact that the cost for fat is low and that, in turn, the calories are below standard. The family purchased approximately 3 quarts of milk daily during the month. This practically supplied the family with their daily calcium requirement.

The amount spent on meat, fish, and eggs was very large—32

[1] See Table I of Appendix D, p. 151.

pounds of fresh pork, 22 pounds of beef, 6 pounds of veal, and 4½ dozen eggs. This, with the large amount of milk consumed, accounts for the excessive protein and the approximately standard phosphorus intake. The price paid for meat might easily have been cut down by the selection of the less expensive cuts and more of the fresh varieties. This family, for the most part, bought chops, steaks, and boiled ham.

The family consumed 82 pounds of breadstuffs during the month. This included almost daily purchase of coffee cake, buns, cookies, layer cakes, and jelly rolls, for which they spent a greater amount than the return in dietary factors justified. While they spent approximately the correct proportion of their food budget for fruits and vegetables, study of the items purchased shows that fresh tomatoes at 20 cents per pound, radishes at 6 cents per bunch, and cucumbers at 8 cents apiece were purchased almost to the exclusion of other green vegetables which are comparatively cheap in May. The frequent appearance of such items as strawberries at 25 cents per box and lemons at 5 cents each, in the fruit list, brings up the total cost of fruits and vegetables.

12. Family A156 (+56 Per Cent)

This is an American family which consists of father, mother, and two children—a boy of six years and a baby of three weeks. The family of four, with two men roomers, lives in a six-room cottage. The house is equipped with bath, furnace, and gas. The rooms are small but well furnished. They have three double beds. The family owns a piano, victrola, and radio. The yearly family fund of $1,737 is provided entirely by the earnings of the father.

Dietary factors.—The family's total expenditure for food is extremely above standard (+56 per cent) according to the Chicago Budget. The return in dietary factors, judged by the Sherman-Gillett standards, is as follows: calories, +19 per cent; protein, +141 per cent; calcium, +4 per cent; phosphorus, +29 per cent; iron, +37 per cent.

A comparison of the percentage of the food fund spent for specified foods with that of the Sherman Budget division shows that the family spends approximately what it should for fats; slightly more than one-half what it should for milk; a little more than it should for meats; and one-fourth more than it should for cereal grains and fruits and vegetables. The above applies only to relative proportions spent for certain foods. The absolute amount spent for the entire diet is excessive.

This family purchased an average of slightly more than 2 quarts of milk per day. This amount, with some calcium yielded by other foods, brought the calcium to standard. The milk, together with 35 pounds of lean meat, brought the protein and phosphorus above standard.

The selection of meat items proved to be largely boiled ham and lamb chops. The former is a prepared meat, high in price; and the latter is a choice cut—both items more expensive, for the return in dietary factors, than the income of the above family justifies.

Vegetables appeared in the diet almost every day. Eighty-four pounds of potatoes led the list, and other vegetables appearing frequently were onions, carrots, cabbage, and a variety of canned vegetables, such as corn and beans. The selection of fruits was not good. Bananas at 50 cents, oranges at 60 cents per dozen, and fresh strawberries made up the majority of items on the fruit list. The latter selection caused the total amount spent for fruits to be high and entirely out of proportion to the total which a family of this size should spend for fruits.

Cutting down on the amount of fat used, reducing the expenditure for meats, fruits, and vegetables, with a more careful selection of each, would lower the total expenditure to standard and would adjust the expenditure of individual items to standard, according to the Sherman Budget division.

13. Family J3 (+63 Per Cent)

This Polish family consists of father, mother, and three children —girls of eleven and five years, and a boy of two years. The family and a man roomer live in four rooms. The house has a private toilet, three double beds, two stoves, and is equipped with gas. The rooms are light, airy, and newly painted. The house is clean, but there are no indications of comfort. The yearly family fund of $1,201 is entirely made up of the father's earnings.

Health.—The children are plump and apparently healthy.

Dietary factors.—The family's total expenditure for food is high above standard (+63 per cent) according to the Chicago Budget. The return in dietary factors, judged by the Sherman-Gillett standards, is as follows: calories, +23 per cent; protein, +96 per cent; calcium, −57 per cent; phosphorus, +15 per cent; iron, +180 per cent.

A comparison of the percentage of expenditure for specified foods with that of the Sherman standard division of expenditure

shows that the family spends slightly more than it should for fats; one-fifth of what it should for milk; approximately what it should for meats; slightly less than it should for cereal grains, and two and one-half times what it should for fruits and vegetables.

It must be remembered that this family spent 66 per cent more than it should for its total food. If the percentage distribution coincided with the Sherman division exactly, it would be spending far more than necessary for each item. With the percentage above standard, as in the case of fruits and vegetables in the family described above, it means that there has been an outlay entirely beyond reason for the family in question.

This family of five used only 8 quarts of milk during the month, which explains the extremely low return in calcium. A very large amount of meat was purchased—27 pounds of sausage, 44 pounds of fresh pork, 14 pounds of beef, and 21 pounds of other meat and fish. This accounts for the extremely high protein of the diet, and for the fact that the phosphorus is above standard.

Examination of the diet record to determine the reason for the excessive expenditure for fruits and vegetables shows that a moderate amount of green vegetables was purchased but huge quantities of fresh fruits, as peaches, plums, pears, and grapes. It is believed that this supply of fruits, which would be entirely too much to be used by one small family during one month, may have been canned or preserved for future use.

Much of the money spent for cereal grains was devoted to cakes and pies, one of which appeared almost daily on the family table.

In this diet the total expenditure could be cut to the standard set by the Chicago Budget. Then, the percentage spent for fats and cereals should be slightly reduced, and the fruit and vegetables reduced at least by one-half. Pork and pie should be used less often, and the amount of milk should be greatly increased to balance the dietary factors.

14. Family G24 (+71 Per Cent)

A father, mother, and three children make up this Italian family. The children are a girl aged fifteen years, and two boys of thirteen and eleven years. This family of five lives in seven rooms. They have one single and two double beds. The house is equipped with a bathroom, two stoves, gas, and electricity. The home is plain, but light, neat, and attractive and in a good neighborhood. The mother works in a tailoring establishment and supplies a part of the family fund which is $2,124.

Health.—The boy of eleven years has tubercular glands and has received treatment from the Municipal Tuberculosis Sanitarium.

Dietary factors.—The family's total expenditure for food is much above standard (+71 per cent) according to the Chicago Budget. The return in dietary factors, judged by the Sherman-Gillett standards, is as follows: calories, +60 per cent; protein, +157 per cent; calcium, +19 per cent; phosphorus, +87 per cent; iron, +39 per cent.

A comparison of the percentage expenditure for specified foods with that of the Sherman Standard division for expenditure shows that the family spends about one-half what it should for fats and milk; about one-third more than it should for meats; one-half more than it should for cereal grains; and three-fourths more than it should for fruits and vegetables.

Again, it must be remembered that in this family the total expenditure for food was 76 per cent above the Chicago Budget. In interpreting the division of expenditures this must be taken into account. For instance, the absolute expenditure for milk is approximately correct, while the percentage of the budget devoted to milk is below standard according to Sherman.

The daily diet record shows that 84 quarts of whole milk were purchased by this family during the month. With small amounts of calcium yielded by other food materials, the total amount was brought above the Sherman standard.

This family purchased 31 pounds of pork, 31 pounds of beef, 9 pounds of veal, and 10 dozen eggs during the month (May 12–June 12). This, with the milk consumed and 200 pounds of flour, raised the protein and phosphorus far above the standard designated by Sherman.

The excessive amount spent for cereal grains was expended for the large bulk of flour, mentioned above, 60 pounds of macaroni, and 40 pounds of bread during the month. In addition to bread and flour purchased, pies, biscuits, rolls, cookies, and coffee cake were used often.

A study of the items purchased with the large amount of money expended for fruits and vegetables shows that a different selection of both would have brought a greater return in dietary essentials with less expenditure. Strawberries, grapefruit, cucumbers at 10 cents each, and fresh tomatoes in May should not be purchased unless there is assurance that all dietary factors are supplied and that the total expenditure is not excessive.

GROUP III. STUDIES OF INDIVIDUAL FAMILIES 12 TO 65 PER CENT BELOW THE CHICAGO STANDARD BUDGET IN EXPENDITURE FOR FOOD

15. FAMILY A36 (−12 PER CENT)

This Dutch family consists of father, mother, and three children —boys aged seven and one, and a girl aged four. An additional member of the family is the husband's mother. The family of six lives in a six-room house. They have two single and two double beds. The house is equipped with a bathroom and is heated by a furnace. The home is immaculate and simply but comfortably furnished. There is no evidence of privation; the family owns a piano and an automobile. The family is also making payments on a house. The family fund of $1,954 is supplied by the father's earnings and by money from rental for part of the house.

Health.—The boy of seven is very thin and appears anemic.

Dietary factors.—The family's expenditure for food is not far below standard (−12 per cent) according to the Chicago Budget. The return in dietary factors, judged by Sherman-Gillett standards, is as follows: calories, +19 per cent; protein, standard; calcium, −49 per cent; phosphorus, +7 per cent; iron, −3 per cent.

Comparing the percentage division of expenditure for dietary factors with Sherman's Budget division, this family spends approximately what it should for fat and cereal grains; one-sixth of what it should for milk; slightly more than it should for fruits and vegetables; and twice what it should for meats.

Examination of the diet record reveals the fact that this family of three adults and three children uses less than 1 quart of milk per day for the entire group. This accounts for the low calcium in the diet. The selection of meats was faulty in that the expensive cuts, such as steaks and chops, were bought regularly. A saving in this item might wisely have been applied to the purchase of milk. This family occasionally purchased rolled oats, remarkable in that the item, cereal breakfast food, appeared in few of the diet records. The cereal added to the calories and mineral supply of the diet. Almost no fancy cakes and breads were purchased. The mother purchased flour and did the family baking. Asparagus at 15 cents per bunch and cauliflower might have been supplanted by spinach and cabbage. By this slight adjustment, the iron would have been supplied more generously.

16. FAMILY L9 (−12 PER CENT)

This Swedish family consists of father, mother, and five children —girls of fourteen, ten, and four years, and one of six months; and

a boy of twelve years. The father was trained as a cabinet-maker in Sweden. The mother passed through the first year of high school and hoped to be a teacher. The oldest daughter is now in high school and hopes to go to normal school. The family of seven persons lives in four rooms. It uses one single and two double beds. The house is equipped with two stoves, gas, and electricity. Only a yard toilet is provided. A piano, sewing machine, and washing machine are owned by the family. The family fund of $1,368 is earned entirely by the father.

Health.—The baby has convulsions, but the other members of the family are apparently healthy. The Infant Welfare Society is visiting the family regularly.

Dietary factors.—The family's expenditure for food is not far below (−12 per cent) according to the Chicago Budget. The return in dietary factors, judged by the Sherman-Gillett standards, is as follows: calories, −13 per cent; protein, +3 per cent; calcium, −59 per cent; phosphorus, −27 per cent; iron, −29 per cent.

Comparing the percentage of expenditure for specified foods with those of the Sherman Budget division, it is found that the family spends one-half more than it should for fats; one-fourth of what it should for milk; one-third more than it should for meat; one-half more than it should for grain products; and one-fourth more than it should for fruits and vegetables.

Examination of the diet records shows that the family purchased during one month 12 pounds of butter, and 4 pounds of butter substitute and lard. The butter was habitually purchased in ½-pound lots, making the cost from 55 cents to 60 cents per pound. This accounts for the fact that there was high expenditure for fats and lower caloric return than should be expected from the amount spent.

This family of seven consumed an average of 1 quart of milk per day for the entire group. This explains the lack of calcium in the diet. While the expenditure for meat was high, examination of the record shows that expensive cuts of meat (steaks and chops) and prepared meats were purchased for the most part. Cheaper cuts of fresh meat would have yielded the same dietary essentials at a great saving of money. Expenditure for grain products was excessive. Cakes, cookies, doughnuts, and coffee cake were bought almost daily. This raised the price without raising the return in dietary essentials proportionately.

The expenditure for fruits and vegetables might easily have been brought to standard by purchasing spinach, cabbage, and the fruits

in season in April and May, rather than cucumbers, radishes, oranges, and strawberries, out of season at that time and so expensive as to consume the food allowance without bringing adequate return in food values.

Butter bought in larger quantities, and more butter substitutes used, a choice of the cheaper cuts of fresh meat, the addition of at least 3 quarts of milk to the diet daily, the introduction of whole-grain cereal breakfast foods, with less fancy bread and cake, the selection of vegetables and fruits in season, would readjust the cost of the various items and assure an adequate return in dietary essentials.

17. Family J11 (−16 Per Cent)

This colored family consists of father, mother, and two children —a boy of three years and a baby of five weeks. The family lives in one furnished room; it owns no furniture, and moves about frequently. The family fund for one year is $1,071, which is supplied entirely by the earnings of the father.

Dietary factors.—The family's expenditure for food is 16 per cent below standard according to the Chicago Budget. The return in dietary factors, judged by the Sherman-Gillett standards, is as follows: calories, −19 per cent; protein, +11 per cent; calcium, −63 per cent; phosphorus, −38 per cent; iron, +8 per cent. This shows calories, calcium, and phosphorus low enough to cause concern.

Comparing the percentage of expenditure for specified foods with that of the Sherman budget division, it is found that the family spends about twice what it should for fats; only one-third of what it should for milk; about one-fourth more than it should for meat, fish, and eggs; and approximately the correct proportion for cereal grains and fruits and vegetables.

Examination of the daily diet record of this family of four reveals the fact that, although it purchased 11 pounds of butter and lard, 12 pounds of salt pork and sausage, and 8 pounds of fresh pork during the month, the calorie return of the diet was low. The family consumed a small amount of potatoes and whole-grain cereals which would, if increased in amount, contribute materially to the fuel value of the diet. The adequate iron of the diet may be attributed to the lean meat and the fairly generous supply of turnip greens, spinach, and egg yolks consumed by the family. The adequate protein of the diet may be attributed to the buttermilk and egg whites. Addition

of the whole-grain cereals and more milk would raise the phosphorus content of the diet decidedly.

Although the calcium seems hopelessly low, the application of the money spent in excess for meat and fats could be applied to the purchase of milk and the amount of calcium increased sufficiently to yield an amount adequate for this family.

18. Family L10 (−25 Per Cent)

A father and mother of Italian birth have a family of six children. The girls are fourteen, twelve, nine, and seven years of age; and the boys are ten years and six months old, respectively. The father and mother came from Sicily. They knew each other as children in the old country, but met again and married in the United States. The father earns $2,059 yearly, which amount makes up their entire family fund. This family of eight persons lives in six rooms. The house is equipped with a private toilet, three double beds, two stoves, gas, and electricity. The condition of their furniture is good; and the house is clean and in good repair.

Health.—The entire family is reported to be in good health.

Dietary factors.—The family's expenditure for food is considerably below standard according to the Chicago Budget (−25 per cent). The return in dietary factors, judged by the Sherman-Gillett standards, is as follows: calories, −43 per cent; protein, −19 per cent; calcium, −58 per cent; phosphorus, −42 per cent; iron, −57 per cent.

Comparing the percentage of expenditure for specified foods with that of the Sherman Budget division, it is found that the family spends about three-fourths of what it should for fats; two-thirds of what it should for milk; approximately what it should for meats, fruits, and vegetables; and almost twice what it should for cereal grains. The low calories of the diet are due to the fact that the only fats purchased were 4 pounds of butter and 1 gallon of olive oil. The latter cost $2.90, raising the amount expended for fats. No fat meats, such as sausage or bacon, were purchased; and only 4 pounds of fresh pork were bought. The approximately standard amount spent for "meat, fish, and eggs" was expended mainly on beef, veal, fish, and eggs. The purchase of boiled ham frequently at 60 cents per pound raised the amount spent on meat without yielding dietary essentials in proportion to the expenditure. The 58 pounds of breadstuff used added considerably to the protein also, but did not bring it to standard in this family of eight.

Although the family falls only one-third below the accepted standard in expenditure for milk, it is seriously below in calcium. Examination of the diet record for one month shows that the family purchased only 30 quarts of whole milk. Twenty-nine pounds of condensed milk were bought for the baby at a cost of $7.25; this reveals the fact that the remainder of this family of eight used approximately 1 quart of milk daily for the entire group.

The cost of cereal grains was high because of the daily purchase of spaghetti. Almost no fruits were purchased during the month. The vegetables bought were of the green variety—asparagus, cucumbers, and radishes. In May and June these vegetables are high and consequently cannot be used as frequently as green vegetables should appear in the diet. The purchase of tomato sauce daily for the spaghetti also assisted in bringing the cost of vegetables up to standard.

Clearly, racial tastes guided this family in their selection. The use of inexpensive fats, whole fresh milk, the cheaper fresh meats, whole grain cereals, fruits, and vegetables in season would revolutionize this diet.

19. Family A54 (−33 Per Cent)

This Polish family consists of father, mother, and two children —a boy of eight and a girl of five years. An adult man boards and rooms with the family. These five persons live in a five-room frame house. The house is equipped with electricity; one double and two single beds are used by the group. This appears to be a thrifty and ambitious family; the father has steady work and attends night school. The yearly family fund of $1,518 is provided by the father's earnings and by revenue from the boarder.

Health.—The boy is thin and pale and not in the best of health. The girl is thin but apparently in good health.

Dietary factors.—The family's expenditure for food is considerably below standard according to the Chicago Budget (−33 per cent). The return in dietary factors, judged by the Sherman standards, is as follows: calories, −51 per cent; protein, −20 per cent; calcium, −65 per cent; phosphorus, −47 per cent; iron, −45 per cent. This shows a diet seriously low in all essentials.

On the basis of actual money expended, this family spent two-thirds enough for meat, fish, and eggs. This money might even have been "extended" had a somewhat different selection been made. For instance, one item was a chicken for $1.55, which scarcely justified considering the net return in food value for the price paid.

This family spent enough money for cereal grains, but examination of the daily diet record shows that this amount included almost daily purchase of cakes, as well as the bread and macaroni mentioned above. No cereal breakfast foods were purchased, and sample menus submitted by this family revealed the fact that the breakfast regularly consisted of cakes, bread, and coffee, with milk added occasionally.

Three varieties of fruit were purchased by this family—apples, oranges, and strawberries. Oranges were bought more frequently than the others and never cost less than 40 cents a dozen. The family did not use vegetables frequently—1 pound of potatoes, 2 pounds of seeds, and 15 pounds of all other vegetables were used during the month. The "other vegetables" consisted of dry onions largely, with some canned peas, tomatoes, and tomato sauce. Spinach was purchased once, and cabbage not at all.

Clearly, this family needs practically to double its outlay for food. This increase should be largely applied to fats, milk, fruits, and vegetables. The fats should be of the easily digestible kinds, butter and butter substitutes; the bulk of the milk should be increased three to four times; more should be spent for meat, and particularly for the less demanded cuts of fresh meat; twice as much should be spent for fruits and vegetables, and those varieties in season should be purchased. A more economical purchase of cereal grains would include the cereal breakfast foods and dark bread, with elimination of a great deal of cake now purchased by the family.

Comparing the percentage of expenditure for specified foods with that of the Sherman Budget division, it is found that the family spends less than one-fifth of the correct proportion for fats; less than one-third of what it should for milk; twice what it should for meat, fish, and eggs; almost twice what it should for cereal grains (mainly bread); and one-fourth more than it should for fruits and vegetables.

Examination of the daily diet records show that only 20 quarts of whole milk were purchased by this family of three adults and two young children during one month. This low milk supply is responsible for the inadequate calcium content of the dietary, and partially responsible for the low phosphorus. No butter, butter substitute, or lard was purchased during the month; salad oil was the only fat bought. This accounts, in a measure, for the fact that the calories were very low.

Scrutiny of the items purchased under the heading "meat, fish, and eggs" shows that, although the family spent twice what it should

for meat, fish, and eggs, the return in protein and iron was comparatively low, due to unwise selection. While eggs are cheap in May and June, this family purchased only 1½ dozen and expended the bulk of the money on prepared meats, such as boiled ham, head cheese, and canned fish, and on the more expensive cuts of beef, such as sirloin steak.

The heavy expenditure for cereal grains is accounted for by the fact that much of their breadstuff was in the form of biscuits, cookies, coffee cake, and pies. These give small return in dietary essentials for the large amount of money expended.

Study of the items entered under "fruits and vegetables" shows that the higher-priced fruits (in May), such as peaches, plums, cherries, and oranges were purchased frequently, and that such vegetables as cucumbers and sauerkraut were purchased more often than the fresh green cabbage, plentiful in May. Spinach or mustard greens did not appear on the list, which partially explains the low iron supply of the diet.

20. Family M19 (−41 Per Cent)

This is an Italian family consisting of father, mother, and seven children—boys of eighteen, sixteen, four, and two years, and girls of ten, six, and five years of age. The family of nine lives in six rooms. They have three double beds, a bath, two stoves, gas, and electricity. The furniture is in good condition. They have a piano, victrola, and sewing machine. The clothing of the family is in bad condition. The family fund of $1,361 is made up entirely of the father's earnings.

Health.—The girl of ten years is pale and listless.

Dietary factors.—The family's expenditure for food is 41 per cent below standard when compared with the Chicago Budget. In dietary factors it ranks as follows: calories, −41 per cent; protein, −8 per cent; calcium, −58 per cent; phosphorus, −25 per cent; and iron, −32 per cent.

Comparison of the percentage distribution of expenditure for specified foods with that of the Sherman Budget division shows that the family spends one-fifth what it should for fats; about one-third what it should for milk; twice what it should for meat, fish, and eggs; approximately what it should for cereals; and one-third more than it should for vegetables and fruits.

Examination of the daily diet record shows that this family of nine purchased an average of a little over 1 quart of milk per day. This accounts for the fact that the calcium was extremely low. The family bought no butter or fat meats (as bacon or sausage) during

the month; this, in a measure, accounts for the low calorie return of the diet. One gallon of olive oil was used, for which they paid $3.00. The purchase of 22 pounds of beef, 6 pounds of other lean meats and poultry, 3 pounds of cheese, and 22 dozen eggs during the month brought the protein nearly to standard.

The family consumed 31 pounds of macaroni, 32 pounds of bread, and 27 pounds of flour during the month. They did not buy pastries and cakes, but purchased, in many cases, biscuits at 24 cents a dozen instead of the loaf bread. This raised the cost of cereal grains without increasing the return in food values proportionately.

The vegetables purchased were almost exclusively fresh tomatoes, dry onions, and turnip greens. The latter two were purchased at a reasonable rate; but the tomatoes, which were bought frequently, were purchased at 20 cents per pound, or 5 cents apiece. Canned tomatoes might have been used economically, and a margin of money left for other vegetables. Under such circumstances, the iron content of the diet would undoubtedly have been raised. Potatoes were purchased infrequently. This tended to cut calories.

The family purchased almost no fruit. A few oranges were bought usually in lots of two or three, at the rate of 5 cents to 7 cents per orange.

In actual outlay of money, this family spent almost a negligible amount for fats and milk, and from one-half to two-thirds what they should for cereals and vegetables. Increase in amounts of fats (preferably butter and butter substitutes) and milk used would increase the calories and calcium and add a type of protein highly desirable for growing children. There should be an increase of the whole-grain cereals in the form of dark breads and breakfast foods, and an increase of vegetables of the less expensive type and those in season. A supply of the cheaper fresh and of dried fruits should be added to the diet.

A general lack of sufficient quantities of food seems to be a big factor in accounting for the dietary deficiencies in this family of nine members.

21. Family K18 (−43 Per Cent)

An Italian family, from Southern Italy, consists of father, mother, and three daughters aged fourteen, twelve, and two years. This family of five lives in five rooms. The home is clean and neat and has two stoves, gas, and electricity. They have two double beds, sewing machine, organ, and victrola. The father is the sole con-

tributor to the family fund of $1,494. The mother reports that it is increasingly difficult to make ends meet, with the present cost of living.

Dietary factors.—The family's expenditure for food is 43 per cent below the standard when compared with the Chicago Budget. In dietary factors[1] it ranks as follows: calories, −48 per cent; protein, −10 per cent; calcium, −44 per cent; phosphorus, −33 per cent; iron, −50 per cent.

Comparison of the percentage distribution of expenditure for specified foods with that of the Sherman Budget division shows that the family spends about one-third what it should for fats; one-half of what it should for milk; one-third more than it should for meat; almost twice what it should for cereal grains; and about what it should for fruits and vegetables. Since the total expenditure is deficient, however, we must consider absolute as well as relative amounts expended.

Examination of the diet record reveals the fact that this family of five purchased 2 pounds of butter and no other fats or fat meats (sausage or bacon) during the month. This accounts, in a measure, for the very low calories yielded by their diet. Twenty-six quarts of milk were purchased during the month, less than 1 quart per day, netting them not quite one-half of the family calcium requirement. The protein requirement was brought almost to the Sherman standard by the consumption of 10 pounds of beef, 7 pounds of chicken and fish, 10 pounds of cheese and 6 dozen eggs during the month. Fifty-five pounds of bread, 27 pounds of macaroni, and the milk also contributed to the protein supply.

22. Family J39 (−44 Per Cent)

This is a colored family of three: step-father, mother, and one child—a daughter of fifteen years. The mother was married very young and separated from her husband. A boarder in this household makes a family of four. They live in a house of eleven rooms, four rooms of which are rented out. They have one coal stove and one two-burner gas plate. The house is furnished very well and is neat and clean. There are six double beds in the house. Most of the money which makes up the family fund, $3,479, comes from the rental of rooms and the income from the boarder.

Dietary factors.—The family's expenditure for food is 44 per cent below standard when compared with the Chicago Budget. In dietary

[1] See Table I of Appendix D, p. 151.

factors it ranks as follows: calories, −59 per cent; protein, −43 per cent; calcium, −73 per cent; phosphorus, −57 per cent; iron, −58 per cent.

Comparison of the percentage distribution of expenditure for specified foods with that of the Sherman Budget division shows that the family spends one-fourth more than it should for fats; one-sixth of what it should for milk; twice what it should for meat; three-fourths what it should for grain products; and approximately what it should for fruits and vegetables. This gives only a picture of the relative proportions spent for certain foods. The absolute amount spent for the entire diet is very low.

Examination of the diet record reveals the fact that the family bought 7 quarts of buttermilk, 1½ pounds of condensed milk, and no whole milk during the month. The very large deficit of calcium reflects this almost complete lack of milk in the family diet.

The family purchased 2 pounds of butter, 6 pounds of lard, 7 pounds of bacon and salt pork, and 11 pounds of fresh pork. This contributed considerably to the calories yielded by the diet, but the comparatively small amount of cereal grains used served to keep the total return in calories much below standard.

The examination of the items purchased under the heading "meat, fish, and eggs" showed that 5 pounds of beef, 2½ pounds of chicken, 3 pounds of fish, and 8 dozen eggs were bought. The use of 2 dozen eggs per week for a family of three members is a fair amount. Had the milk and cereal grain supply been adequate, undoubtedly the protein would have been standard in quantity, and the milk would have added to the desirability of its quality.

A small amount of loaf bread was purchased; plain rolls, sweet rolls, and coffee cake were the items repeatedly recorded. No whole-grain breakfast foods or breads were purchased. The entire amount of money spent upon cereal grains was so low that an adequate supply could not have been purchased with the most careful selection.

Only 9 pounds of fruit were used by this family during the month, and those fruits purchased were bananas and apples almost exclusively. More vegetables were used and those were of a valuable kind, such as tomatoes, cabbage, and mustard greens. They paid 25 cents per pound for fresh tomatoes, an expenditure which was not justifiable.

Quantities of all foods in this diet were alarmingly small, with the exception of meat, fish, and eggs. More fat, such as butter or butter substitutes, should be added; and at least 2 quarts of whole

milk should be purchased by the family daily. More cereal grains should be added in the form of whole grains. More fruits and those in season should be added to the diet. More vegetables of the kind represented in the diet record, and some of the root variety, should be added until the family is spending twice as much as at present on fruits and vegetables.

23. Family D2 (−48 Per Cent)

This is a family consisting of a father of Hindu parentage; the mother, a colored woman; four sons, aged eight, seven, three, and one; and the wife's mother. The wife is a graduate of high school. The family of seven lives in a house of four rooms and bath. They have three double beds and a baby bed. The furniture is scanty and worn, and the rooms are dark. The family fund of $1,103 is made up entirely of the father's earnings.

Dietary factors.—The family's expenditure for food is 48 per cent below standard when compared with the Chicago Budget. In dietary factors it ranks as follows, when compared with the Sherman-Gillett standards: calories, −51 per cent; protein, +95 per cent; calcium, −38 per cent; phosphorus, −50 per cent; iron, −59 per cent.

Comparison of the percentage distribution expenditure for specified foods with that of the Sherman division shows that the family spends about one-half what it should for fats; approximately what it should for milk and meat; a little more than it should for cereal grains; and a little less than it should for fruits and vegetables. This gives only a picture of the relative proportions spent for certain foods. The absolute amount spent for the total diet is about 50 per cent below the Chicago Standard Budget.

Study of the diet record reveals the fact that this family of seven purchased only 26 quarts of fresh milk during the month, and 16 pounds of condensed milk. With less than 1 quart of whole milk per day for this family with four growing children, the great deficit of calcium in the diet is easily explained.

The family used only 1½ pounds of butter, 4 pounds of lard, and no fat meats (bacon, sausage, etc.) during the month. This explains, in part, the low calorie return of the diet.

The high return in protein of the diet may be accounted for by the fact that 25 pounds of beef, 10 pounds of fish, and 4 dozen eggs were purchased, beside the fresh and condensed milk. The protein yield from the cereal grain products added considerably to the total protein supply, bringing it about Sherman standard for that dietary factor.

This family spent about one-half as much as it should spend on cereal grains. A share of the amount spent was devoted to the purchase of 28 pounds of rice. The remainder was largely spent on the sandwich loaf bread (34 pounds bread purchased). One box of breakfast food was purchased. The expenditure might well have been doubled by adding the whole grain breads and breakfast cereals.

With the exception of lemons purchased twice, no fruit was bought by the family during the month. Canned tomatoes, fresh spinach, and dry onions were the vegetables selected by the family. Twice as much money should have been spent for fruits and vegetables, with a generous supply of the varieties in season added to the diet.

The great deficit in the amount spent for all foods shows that a lack of sufficient quantity has largely been the cause of deficiency in this diet. At least 4 quarts of fresh whole milk per day should be used by this family, thereby supplying the day's calcium and a form of protein desirable for growing children. Fruits, whole grain cereals, more vegetables, and easily digestible fats should be added to the diet.

24. Family C6 (−53 Per Cent)

This colored family consists of father, mother, and three children—a boy of five, and two girls, one of three and one one year old. Both the father and mother were born in the South; both, also, are high-school graduates. This family of five lives in one furnished room. They have two double beds. They own no furniture. The father is the sole contributor to the family fund of $1,196.

Dietary factors.—The family's expenditure for food is 53 per cent below standard when compared with the Chicago Budget. In dietary factors it ranks as follows, when compared with the Sherman-Gillett standards: calories, −37 per cent; protein, −19 per cent; calcium, −80 per cent; phosphorus, −60 per cent; iron, −48 per cent.

Comparison of the percentage distribution of expenditure for specified foods with that of the Sherman Budget division shows that the family spends approximately the correct amount for fats; one-fourth what it should for milk; twice what it should for meat; slightly more than it should for cereals and fruits and vegetables. The above percentage distribution is of value only when it is remembered that the absolute amount spent for food is only one-half of what it should be, when compared with the Chicago Budget.

Examination of the diet record reveals the fact that this family of five purchased 8 quarts of whole milk, 1 quart of buttermilk, and

1 pound of condensed milk during the one month. This explains the almost complete lack of calcium in the diet.

The family used 7 pounds of lard, 2 pounds of butter, and 2½ pounds of bacon and salt pork during the month. For a family of this size more butter or butter substitute should have been used. This would assist in bringing the calories up to standard.

The meat purchased was, in the main, the less demanded cuts, and approximately the right amount of money was spent for meat. However, the small amount of milk and the small return in protein from the cereal grains reduced the protein below the Sherman standard.

The bulk of cereals selected was largely made up of 21 pounds of bread, 20 pounds of flour and corn-meal, and 8 pounds of breakfast food. The latter item included oatmeal and farina, which was served daily for breakfast. The difficulty here is that the amount spent would have to be doubled in order to secure the desired return in dietary essentials, even with a wise selection of the various cereal grains.

Fruits were practically lacking in this family's diet. With a very few exceptions, the vegetables purchased were fresh tomatoes at 15 to 20 cents per pound. The fund for fruits and vegetables should be doubled, and the fruits and vegetables in season in May and June should make up the items to be purchased.

An inadequate supply of fats, whole fresh milk, cereals, fruits, and vegetables, and a faulty selection of cereal grains and vegetables account for this deficient diet.

25. Family J6 (−59 Per Cent)

This is a colored family which consists of father, mother, and five children—boys of twenty-two, nineteen, fourteen, and twelve years, and a girl of seventeen years. The family of seven lives in a seven-room house. They have three double and two single beds. The house is fitted with electricity and gas, and is heated with a furnace. The furniture is rather old and badly worn. The mother does day work and the four older children work regularly, thus aiding the father in providing a family fund of $1,810.

Dietary factors.—The family's expenditure for food is 54 per cent below standard when compared with the Chicago Budget. In dietary factors it ranks as follows, when compared with the Sherman-Gillett standards: calories, −36 per cent; protein, −23 per cent; calcium, −71 per cent; phosphorus, −48 per cent; iron, −58 per cent.

Comparison of the percentage distribution of expenditure for

specified foods with that of the Sherman Budget division shows that the family spends more than twice what it should for fats; less than a third of what it should for milk; three-quarters more than it should for meat; approximately what it should for cereal grains; and about one-half of what it should for fruits and vegetables. Since this family spent only one-half of what it should for food, the above gives only a picture of how this inadequate fund was distributed among the various items.

This family of seven purchased 7 quarts of fresh whole milk, 19 quarts of buttermilk, and ½ pound of condensed milk during the month. The very scanty use of whole milk reduced the supply of calcium far below standard.

The protein supply was provided largely by 11 pounds of beef, 30 pounds of other meat and fish, and 75 pounds of flour. The protein factor would have been standard, or would have approached standard, had an adequate supply of milk been used. In this diet approximately the correct expenditure for meat was made, and the selection was fairly good. Little of the prepared meat was purchased, and the less-demanded cuts were used frequently in stews. The amount of money spent on fats was adequate. Had more butter and butter substitutes been purchased for bread, instead of so much lard (9 pounds) for frying, the balance would have been better.

The supply of fresh whole milk should be greatly increased, probably to 3 or 4 quarts per day, to supply all of the calcium needed.

The supply of cereals was inadequate; practically the entire amount spent was devoted to 75 pounds of white flour and 8 pounds of bread. The total money spent should be doubled and a large portion of it devoted to the whole grain breads and breakfast cereals, entirely lacking in the diet at present.

Fruits and vegetables were purchased, and, for the most part, the money was spent on varieties in season. The difficulty lay in the lack of enough of them in the diet.

A deficiency in amounts of fresh whole milk, cereals (especially the whole-grain variety), and fruits and vegetables served, in the main, to make this diet deficient in dietary essentials.

26. Family A129 (−63 Per Cent)

This colored family consists of father, mother, and four children —a boy of thirteen, and girls of eleven, nine, and four years. This family of six, with an adopted girl of thirteen and a man roomer, lives in five rooms. They have three double beds and one single cot.

The house has a bathroom and two stoves, and is equipped with gas. The home is in an old frame apartment house; the rooms are large, but shabby and untidy. The children's clothes are made of scraps. The three older children picked berries in the summer and added to the father's income, making the total family fund $1,665.

Dietary factors.—The family's expenditure for food is 63 per cent below standard according to the Chicago Budget. In dietary factors it ranks as follows, when judged by the Sherman-Gillett standards: calories, +2 per cent; protein, −2 per cent; calcium, −61 per cent; phosphorus, −24 per cent; iron, −31 per cent.

Comparison of the percentage of expenditure for specified foods with that of the Sherman Budget division shows that the family spends one-half more than it should for fats; one-half of what it should for milk; three-fourths more than it should for meat, fish, and eggs; approximately what it should for cereals and for fruits and vegetables. This gives only a picture of how the money spent for food was distributed among the various items. These are only relative proportions spent for certain foods. The absolute amount spent for the entire diet is far below the standard set by the Chicago Budget.

This family of six used 15 pounds of lard, 5½ pounds of butter, and 5 pounds of bacon and sausage during the month. Had the amounts of butter and lard been reversed, and the former used on bread rather than for frying, it would have been more desirable. This amount of fat, with a fair return from meat, cereal grains, and the vegetables, brought the calories to Sherman's standard.

The purchase of 23 pounds of beef, 20 pounds of other meat and fish, and 8 dozen eggs, and a generous return from the cereals, brought the protein practically to standard.

Due to the fact that an average of only 1 quart of whole fresh milk was purchased by this family per day, the calcium was extremely low. Lack of milk also was responsible for low phosphorus, but egg yolks brought it up to 76 per cent of standard.

Examination of the diet showed that this family purchased very little fruit; and oranges, apples, and bananas at 5 cents each were the varieties selected. A good selection of cabbage, onions, black-eyed peas, string beans, and canned tomatoes came under the list of vegetables. If twice as much money had been expended for fruits and vegetables, and a generous portion of this devoted to dried fruits and the cheaper fresh fruits in season, the diet would have been more nearly balanced.

The diet of this family suffered from a lack of quantities of food more than from a faulty selection of items of food. About four times as much milk should have been purchased; twice as much of the cereal grain products (adding some of the whole-grain cereals); and twice as much fruit and vegetables (increasing the fruit more than the vegetables).

27. Family J36 (−65 Per Cent)

A colored family, consisting of father, mother, and seven children, moved to Chicago from a rural district in Georgia in 1922. Five of the children are boys of the ages eight, eleven, thirteen, fifteen, and eighteen; and two are girls of three and sixteen years. This family of nine lives in five rooms, which are dark but fairly comfortable, with bath, private toilet, and four double beds. The oldest boy works regularly and pays board. The younger boys work at odd jobs in the summer and thus assist the father in raising the family fund of $1,357.

Dietary factors.—The family's expenditure for food is 65 per cent below the Chicago Budget for food. In dietary factors it ranks as follows, when judged by the Sherman-Gillett standards: calories, −7 per cent; protein, −32 per cent; calcium, −83 per cent; phosphorus, −52 per cent; iron, −55 per cent.

Comparison of the percentage expenditure for specified foods with that of the Sherman Budget division shows that the family spends twice what it should for fats; about one-seventh what it should for milk; twice what it should for meat (largely fresh pork), fish, and eggs; and approximately the correct amount for cereal grains, fruits, and vegetables.

Examination of the daily diet record reveals the fact that the family purchased 14 pounds of lard, 9 pounds of salt pork, 6 pounds of sausage, and 32 pounds of fresh pork during one month in late spring. The purchase of such quantities of fat and fat meat explains the fact that the family is practically standard in caloric intake, while extremely low in other essentials.

One quart of whole milk, 11 quarts of buttermilk, and 2½ pounds of condensed milk were purchased by this family during one month. This negligible purchase of milk for a family of seven growing children and two adults accounts for the extremely low calcium return in the diet. That the protein and phosphorus were far below standard in amount was due to the fact that milk consumption was low and that meat eaten was of the fat variety rather than lean.

There was an inadequate supply of fruits and vegetables. Oranges and strawberries, fruits out of season in April, were often purchased. The same, in a measure, was true of vegetables. The use of dried fruits, cheaper fresh fruits in season, and the green vegetables plentiful and cheap at this season would have increased the amount of fruits and vegetables in the diet and have insured a greater return in iron to the diet. The extremely low total food expenditure reduced the possibility of securing an adequate return in dietary essentials regardless of division of expenditure.

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